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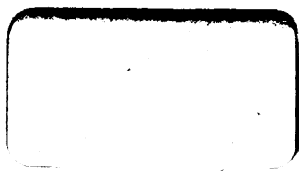
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NAVAL RESERVE FLYING CORPS



HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS UNITED STATES SENATE

SIXTY-SEVENTH CONGRESS

SECOND SESSION

PURSUANT TO

Senate Resolution 200

DIRECTING THE COMMITTEE ON NAVAL AFFAIRS TO
INVESTIGATE THE TRANSFER AND THE EXAMINATIONS
HELD IN CONNECTION WITH THE TRANSFER OF OFFI-
CERS AND MEMBERS OF THE NAVAL RESERVE FLYING
CORPS AND TO REPORT TO THE SENATE THE FINDINGS
AND RECOMMENDATIONS THEREON

APRIL 6, 7, 8, 10, 13, 14, 19, 20, 21, 22, AND 24, 1922.

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UNITED STATES SENATE.

COMMITTEE ON NAVAL AFFAIRS.

SIXTY-SEVENTH CONGRESS, SECOND SESSION.

CARROLL S. PAGE, Vermont, *Chairman*.

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SUBCOMMITTEE ON SENATE RESOLUTION 200.

[Naval Reserve Flying Corps.]

L. HEISLER BALL, *Chairman*.

HENRY W. KEYES.

PETER G. GERRY.

NAVAL RESERVE FLYING CORPS.

THURSDAY, APRIL 6, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to call, at 10.30 o'clock a. m., in the committee room, Capitol, Senator L. Heisler Ball presiding.

Present: Senators Ball (chairman) and Keyes; also, Senator Walsh of Massachusetts.

The subcommittee had under consideration S. Res. 200, which is here printed in full, as follows:

[S. Res. 200, Sixty-seventh Congress, second session.]

Whereas extensive publicity has been given to examinations recently required of officers of the Naval Air Service holding temporary commissions and members of the Naval Reserve Flying Corps desiring to transfer to permanent ranks in the Navy; and

Whereas it has been publicly charged that such examinations were unfair and unreasonable; that an insufficient opportunity for preparation was afforded; that the greater portion of such examinations was devoted to navigation, steam engineering, seamanship, and other subjects wholly unrelated to aviation; and that the individual ability of the officer or member was not given proper consideration; and

Whereas it has been stated that as a result of such examinations many of the successful candidates were reduced in rank and a very large per cent of the candidates were declared unqualified for permanent commissions; and

Whereas unless some action is taken the United States will lose the services of approximately two hundred trained and experienced aviators, including the most experienced and skilled pilots in the country: Therefore be it

Resolved, That the Committee on Naval Affairs of the Senate, by subcommittee or otherwise, is authorized and directed to investigate the transfer and the examinations held in connection with the transfer of such officers and members, under the provisions of section 3 of the act entitled "An act making appropriations for the naval service for the fiscal year ending June 30, 1921, and for other purposes," approved June 4, 1920, and to hold public hearings during the recesses or sessions of the Sixty-seventh Congress, at such times and places as it may deem advisable, in order to determine the correctness of such charges and statements, to make recommendations to the Secretary of the Navy, and to report to the Senate the findings and recommendations.

The CHAIRMAN. The committee will be in order.

Senator WALSH. Mr. Chairman, for the purpose of expediting the hearing and helping the committee, I am going to try to give as much time as I can to directing and assisting the witnesses, so that we can cover the ground as rapidly as possible.

The CHAIRMAN. You will be permitted to call witnesses.

Senator WALSH. Thank you. I want to make a brief statement at the outset.

The CHAIRMAN. Very well, proceed.

STATEMENT OF SENATOR DAVID I. WALSH OF MASSACHUSETTS.

Senator WALSH. I make at this time an opening statement in order to indicate to the committee what it is we expect to show. I have a good deal of feeling about this matter. I feel that these men have been treated by our Government with almost the same indifference and neglect that our Government would be chargeable with if it threw its disabled soldiers out on the streets without giving them any care and attention after their period of usefulness had passed.

That is a pretty strong statement. But I do not think naval officers have appreciated the inhuman side of this case. To take young men out of college, away from their homes, place them for five years in this most hazardous occupation, with their lives in danger every day, many of them being frequently injured, willing to undergo any hardship for their country—and then to have them kicked out after five years, after their careers are spoiled, after many of them have married and have families, and have settled down in the belief that they would devote their lives to the service of their country.

I can not conceive of any men with human instincts, with human feelings, undertaking to do what has been done to these young men as a result of the examinations held.

I am not interested in any one particular case; I do not know any more about one than I do about another. I am not going to plead for any one of them. I am taking up this whole question as a matter of principle.

I had thought that in the Navy we were free of Prussianism.

But here is a situation which, if it is not corrected, will in the future discourage every young man in America wanting to enter the Army or Navy, if they are to be treated in this inhuman way, no gratitude expressed for their services, and barred from making any advancement or progress.

I say this at the outset, because I want the committee to understand my position. I wish to say that in my opinion the naval officers who prepared and conducted these examinations have absolutely lost sight of the human side of this question, of the hardship and injustice done these experienced aviators.

The CHAIRMAN. Senator, we would like to get in our minds a definite idea of the cause of this investigation and what these charges are.

Senator WALSH. I have made this digression for the purpose of impressing the committee with the human side of the problem and that behind this thing of whether these young men passed the examination or not is this question: Can we, as Members of Congress, stand for a policy in our Army and Navy that treats its young men in this fashion after it has gotten the best out of them; and is it not in the interest of efficiency, in the interest of the Army and the Navy, to try and prevent the continuation of abuses and injustices of this kind if they exist, as I contend?

Briefly, the situation is this: At the outbreak of the war the National Government asked for young men to train for reserve officers in the naval flying corps. I think the very best manhood in the country responded to that call. I do not think there was any class of young men in the Nation better educated, higher in character than the young men who went into the naval flying corps.

These young men went through the training period, became reserve officers, went wherever their country called them, did whatever their country required. They went in as ensigns; they were promoted, first to lieutenants, junior grade, then to lieutenants, senior grade; some of them became lieutenant commanders. Everything was done to indicate that their services were approved, that their work was commended, so that step by step they progressed and were promoted, until practically all of them had been raised to the rank of lieutenant, senior grade, at the time when these examinations occurred. They were led to believe that the work they were doing was satisfactory and appreciated.

In the appropriation act of 1920 provision was made for the transfer of 500 reserve officers in the naval flying corps to the regular naval service. Only 244 reserve officers took the examination, but the law provided for the admission of 500 into the regular Navy.

In accordance with the provisions of that law examinations were held last May, and some 244 reserve officers took the examination. We expect to show that the examination was unfair, was one that, in view of the training and the nature of the work and experience that the Government itself had given these men for five years, it was impossible for any of them to pass. In fact, upon the first review of the papers less than 27 of the 244 reserve officers were found qualified.

The examination consisted largely and chiefly of an examination in navigation subjects. I am talking very generally, and the testimony will correct any inaccuracies in my statement. Most of the subjects were subjects such as a Naval Academy man who was seeking a permanent or advanced rank in the regular Navy would have to pass. Only one of the subjects dealt with aeronautics exclusively. Again, I want the committee to know I am talking very generally, and that the details will be gone into by the witnesses. Accordingly, no matter how well a man was trained in aviation, no matter how many flights he had made, no matter what his skill in aviation, if he was a perfect specimen of manhood, if he was the best flier the country had produced, the most he could get in his examination paper on the subject of aviation would be trivial.

I said it was unjust and unfair. Evidence of that is found in the fact that it was not the kind of an examination that reserve fliers in the Army took, and it was not the kind of examination that the reserve fliers in the Marine Corps took. Both the Reserve Officers Corps were given examinations on their aviation record and about aviation subjects exclusively. It was only the flying corps of the Navy that was expected to pass an examination that an Annapolis graduate could pass with difficulty.

The CHAIRMAN. Do you mean the examinations were different in character for the men in the reserve corps than those in the other departments applying for positions?

Senator WALSH. No. At the time these examinations were held, about 1,600 took them. Examinations were held for reserve officers in the flying corps and for reserve officers not in the flying corps, but known as line officers. The great bulk of them were line officers in the reserve service. The examination was identical for all, except that the aviators had the right to substitute aviation for one other subject.

Not one of these young men had ever been on a ship, or even given permission to go on a ship. Yet they were put side by side with men who had for years been doing sea duty in the Navy, who had had the practical experience at sea and had been trained and become skilled under line men.

I was trying to bring out the fact that in the Army the flying men did not have to take the examination that the nonflying Army officers did; they had a separate and distinct examination. Also the flying corps of the Marine Corps had a separate and distinct examination. But not so in this case.

But even in this case the construction officers in the flying corps had a special examination and did not have to take the regular line examination. So there were distinctions made even in the Navy, in that the construction men in flying were given a special examination different from all others.

Let me say that these examinations were prepared under the old administration, so there is no politics in this. The layout of the examinations was made under the old régime, and the present Secretary of the Navy, the present administrative officers, are in no way responsible, except, perhaps, they have not had the vision to comprehend, as I think this committee will and as some of the rest of us have who have heard the story, the fact that it is not too late to correct a wrong that has been done. I want to make it plain that there is no reflection on anybody. The naval officers in the Air Service with whom I have talked have expressed deep sympathy, and I think I can say without divulging any confidence that it was an awful shock to those in the Navy who were devoted to the Air Service to find the situation that developed after the examination. So far as I know, they really regret what has developed, and they wish something could be done to remedy the unfortunate condition that has arisen.

I think it is a very great loss to the service to lose so many actual flyers. What I believe this committee can do, if it comes to the conclusion to which I think it is likely to, is to call upon the Secretary of the Navy, lay the facts before him, and from a disinterested, impartial survey and review of this thing inform him that something has happened here which you think ought to be corrected.

I have not asked for any legislation, but I have asked to stop these men from going out through the country, telling a story of injustice and of disregard for their faithful and loyal service during the time of the war and after the war. I tell you there is a pretty deep feeling of disappointment and chagrin. We are going to have some plain talk here before we get through, because we are going to try to accomplish some good for the service. A question that may be involved here is whether there is a distinction made in the Navy between academy graduates and the men who became reserve officers in the Navy without having had the benefit of training in the academy. We are going to consider

here the question whether or not there is discrimination, unfortunate discrimination, between the man that gets into the flying corps of the Navy on his own merits, without having the benefit of an academy training, and those that have had such educational opportunities.

To come back to the matter of the examination, a very large number of these men failed, practically half of them. The exact figures will appear in the testimony. Nearly everyone of them was reduced in rank, so that many of the men who were lieutenants, senior grade, were made ensigns. Lieutenants that had been promoted to the senior grade failed to pass the examination and were dismissed, or will be dismissed from the service if they have not already been dismissed.

A singular thing is that many of the men who failed in the examination and those who have been reduced in rank heretofore have been recognized by the Navy Department as the most capable, efficient, and expert men in aviation, and the very men who during the war and during the years since the war have been training all the new men accepted in the service for aviation training. The very instructors of the men who are now flying, many of them, failed. Men who were picked out for most remarkable service in the war, men who were selected to undertake flights that were most hazardous and to undertake most important work in the service because of their special skill that was required, have failed and fallen by the wayside.

It would be unreasonable to expect anything different when there were only 20 points allowed for an examination on the subject to which they had devoted their talents and energy while in the Navy. It appears to have counted little however efficient and skillful they were in the performance of their practical duties as aviators.

It is a singular fact that those that did pass and retained their rank are in many cases simply able theorists, while the practical men, the real flying men, the men that have been instructors in line in many instances, have failed. It is my opinion that the worst blow that naval aviation could get has happened and that the hundreds of thousands of dollars that have been spent for training these men, in building up this corps, has been in large part wasted. They have been driven out of the service, and we are now paying thousands of dollars to train new men to come into the service and take their places.

Within only a month or two a letter has been issued by the department asking for flying officers, asking for men to come over to the naval flying service and train for pilots. These men, after five years, part of it through the World War, with all the experiences gained in that war, thrown out. Who will from civilian life go into the naval flying corps after the experience of these men and expect to get any consideration for their service, for their work, or any appreciation?

Do you wonder why people talk about Prussianism in the Navy and the Army when these men, who think an injustice had been committed, were scarcely allowed to go to a Senator or a Congressman and say, "We think that we have not been treated right in these examinations. We have given five years of our life to this work, and we want to stay in it and make aviation our life work; we are willing to give all our services to it. Is there anything that can be done?"

Not only that, but there is another feature to this thing. I have had great respect for the Navy, and I am perhaps displaying a sympathy that I ought not to, but I can not understand a system whereby men who passed examinations last November are reduced in rank and men that failed are still kept in a higher rank than those that passed. For instance, men that passed and that were lieutenants, senior grade, have been reduced to ensign, while men who were lieutenants, senior grade, and failed, are still lieutenants, senior grade, in the service. Of course they will get put out next July, as there will after that be no further authority to hold reserve officers. How can such a system be justified?

The CHAIRMAN. You claim they failed in examination and still hold their rank?

Senator WALSH. Absolutely, and men that passed have been reduced. And not only that, but these men that have been reduced to ensigns have now over them as senior lieutenants Annapolis graduates whom they have trained to fly and who, up to the time of this examination were beneath them. I do not understand how a system can be sustained that permits such a thing. Of course it has resulted in the complete breakdown of the morale of all reserve or former reserve officers.

We hope to show that there is in certain branches of the Navy, and it is true also of the Army, too, there is positive opposition to the aviation program, that these old naval officers will not give up, will not open their eyes to the progress of events, will not realize the importance of aviation as a means of national defense, as a means of national protection.

I have made this outline to you, gentlemen of the committee, so that you might get some idea personally of my own views about the matter and my own feeling in regard to it, and have a general idea of the line of testimony that will be produced here.

I suggest that the testimony be offered by three steps, first, the general background of the Reserve Corps system, when these men went in, how long they have been in, what their training and work has been; second, the examination, the character of it; and, third, the effects of the examination upon the aviation personnel.

From the standpoint of these men themselves, five years of the best part of their lives has gone.

The thing I want to impress upon you is this: I am interested not in any one of these men. But I do want the Navy and the Army of my country respected and esteemed and loved. I want it to be a democratic institution. I want the men to go into it and feel they are going to be treated fairly and justly. I want every man who goes into it in the future to go in with the hope of being treated honorably. I want to eliminate this feeling from which I thought the Navy was free, of discrimination against the boys that have not gone through the regular naval training. They do feel it. Perhaps they are supersensitive; but there is evidently a certain caste distinction, which is unfortunate.

What is the answer to all this by the Navy—because many of these issues have been taken up by correspondence. It is this: First, that these men had time to study and were told they were going to be examined on navigation, and therefore they ought to have studied, that it is their own fault. That will be answer No. 1.

As to having time for study it will appear that none of them were relieved from regular duty. None of them had any practical experience or training with seamanship, never had been on a ship, or at sea.

What amounts almost to a confession of an injustice is the fact that after this protest was made and after this protest was started, the very first thing the Navy did was what? To delegate a number of these men that passed the examination to go to sea, admitting practically that if their theory was correct, to wit, that these men sooner or later must be line officers, that they must begin to learn, but they did not give them a chance to begin to learn until after the examination and after their companions had failed.

That leads to the second objection they make, that the life of an aviator is only a few years, and after that time they will be useless for aviation purposes, and therefore they will have to go into the regular Navy line and must there know something about regular naval duties.

That objection will be met successfully. First of all, the regular life of an aviator is not 5 years or 10 years or 20 years. There are men in charge of stations that never fly, and the very rules of the department exempt from flying many men at flying stations. There are many executive officers, more particularly in the Navy, that think we are going to have before many years big airships, nearly as big as battleships. I have no doubt that in 10 years there will be airships nearly as big as any battleship we have in this country crossing the Atlantic. Commanding officers of the large airships may never touch the wheels. They will have to have knowledge of the art of flying, but they will be matured aviators. The commanding officer of the *Roma* was not piloting the *Roma*. He had nothing to do with the steering of it. But he had to have a general knowledge of aviation to command it.

The CHAIRMAN. Senator, do you not think it would be very material to find out whether at the school of instruction these boys attended, before entering the aviation service, they were taught these matters on which they were examined? I think every boy attended certain schools of instruction before he commenced flying.

Senator WALSH. Yes.

The CHAIRMAN. And that school of instruction taught navigation, did it not?

Senator WALSH. What were you instructed in, young men?

Lieutenant STICKLEY. We were instructed orally only at the ground school for aviation.

Senator WALSH. That was before they began to fly at all.

The CHAIRMAN. As a general principle, it would seem to me they should be taught everything on which they are to be examined.

Senator WALSH. Later I will have all these examination papers brought here for examination and inspection. I want to call your attention to this fact, that the examinations were of such a character that no living human being could answer the questions and do it in the time prescribed. There was a requirement that every single question in the examination had to be written out before the answer was made, and it took, in some instances, one-half the time to write out the questions. If it would take that long to write the questions, how much time do you suppose it would take to write the answers? The result was, so far as I have been able to learn, that nobody was able to complete with satisfaction their examination papers, particularly the one on aviation. Some of the men have told me that on one question alone they could have taken a day—they could have taken a whole day to make the proper answer.

I am not going to take up any more of your time, except I want to repeat, especially to the regular officers of the Navy who are here, that if I have any feeling it is because of my desire to prevent the appearance of injustice and to correct what seems to me to be an inhuman thing. I will be charitable enough to say that my only criticism of the Navy is that they have been living too much up to the law, and to the letter of the law, and have forgotten the human side of this problem. That is why I am so thankful our Government has a legislative branch where contact between the people and the Army and Navy can be balanced and a little human touch applied sometimes to the strict letter of the law and to arbitrary rules.

I will try to shorten this hearing. I do not want to summon all these people here at great expense, and I have asked one or two of the men to prepare the case, as much as possible, for all of them. I could, of course, bring every one of these men here, bring those that have failed or have been demoted, but I do not feel it is wise to do that, and I think the whole case can be covered by the testimony of comparatively few men.

Mr. Chairman, I thank you for bearing with me while I have presented my views to you.

The CHAIRMAN. Senator Walsh, do you know these boys well enough to call on them to present their testimony?

Senator WALSH. Yes.

The CHAIRMAN. Do you want to swear them as witnesses?

Senator KEYES. I think it would be as well.

The CHAIRMAN. Many of you are out of the service?

Lieutenant BRADFORD. Yes, sir.

The CHAIRMAN. I think it would be better, then, to swear them.

Senator WALSH. I should like to say to the committee, in the presence of these naval officers, that I want these men protected. I am not going to undertake the responsibility of calling these boys here and asking them to talk plainly and frankly and find they are discriminated against. I confess, frankly, in view of the experience they had after they were here before, I have some hesitancy in asking these men to testify fully and frankly.

The CHAIRMAN. Any evidence they give before this committee shall not be used against them. That is the decision of the committee. If it should be, it can be brought to the attention of Congress.

TESTIMONY OF LIEUT. SMITH NORRIS BRADFORD.

(The witness was duly sworn.)

Senator WALSH. What is your full name?

Lieutenant BRADFORD. Smith Norris Bradford.

Senator WALSH. What is your home address?

Lieutenant BRADFORD. Bel Air, Md.

Senator WALSH. How old are you?

Lieutenant BRADFORD. Thirty-four.

Senator WALSH. How old were you at the outbreak of the war?

Lieutenant BRADFORD. Twenty-nine.

Senator WALSH. Where were you living and what was your employment at that time?

Lieutenant BRADFORD. At the outbreak of the war I was employed by Alexander Brown & Son, large bankers and brokers, of Baltimore.

Senator WALSH. What had been your education?

Lieutenant BRADFORD. Merely through the high school.

Senator WALSH. After that where did you go?

Lieutenant BRADFORD. After that I went in the employ of the Second National Bank of Bel Air.

Senator WALSH. Then you went to Baltimore with these bankers?

Lieutenant BRADFORD. Yes; stayed there and was made assistant cashier; I went from there and was chief accountant for Alexander Brown & Son.

Senator WALSH. After the outbreak of the war, did you enter the service?

Lieutenant BRADFORD. I entered the service on April 13, 1917.

Senator WALSH. I suppose it is well known here, but for the record will you state the date that war was declared?

Lieutenant BRADFORD. April 6, 1917.

Senator WALSH. And April 13 you volunteered for service?

Lieutenant BRADFORD. Yes.

Senator WALSH. To what branch of the service did you volunteer?

Lieutenant BRADFORD. At that time there was no reserve branch for aviation. After talking it over with the recruiting officer I enlisted as landsman for quartermaster, for aviation duty. That was the only way to enter the aviation service. They informed me at that time that all I would have to do would be to go to training school at Pensacola, and after graduating there as a pilot be given a commission. I think the Navy Department got out a pamphlet to that effect.

After arriving at Pensacola I found this to be an error entirely, that you were merely an enlisted man, and you would serve in that status. There were a number of other people who had been misled by this and who were there at that time. One man I remember now—I think this is correct—was the vice president of the First National Bank of Portland, Me., who was in there as a sailor.

Senator WALSH. In the hope of getting into the air service?

Lieutenant BRADFORD. Yes; in the hope of getting into the air service with a commission.

Senator WALSH. Will you state what training you had?

Lieutenant BRADFORD. We were trained there on aviation duties, as that was only an aviation station. I talked the matter over with, I think it was, the executive officer and asked him what steps would be best for me to take in order to get a commission. He was very nice and suggested that as they were going to open a lighter-than-air school, balloons and airships, at Akron, Ohio, I go there; that it would be a new thing entirely. They had not had any lighter-than-air work in the Navy at that time with the exception of a few free balloons.

Then I was a member of the crew of the *DN-1*, the first airship the Navy ever owned.

Senator WALSH. What was your work on that?

Lieutenant BRADFORD. An enlisted man, handling sand bags, and so on, and looking after the care of the ship. About May 30 of that year they transferred a detachment to the air station at Akron. It was a part of the Goodyear outfit. They were making these aircraft and the Navy sent this personnel to look after the station, and they were going to train people in this branch of the service.

We went there, and I was still all this time trying to find some way to get out of my enlisted status so I could get a commission. You could not get a commission then if you were an enlisted person.

After going to Washington and talking it over with the Chief of Naval Operations—Captain Irwin then was Director of Aviation—I talked this matter over with Commander Towers, who was acting executive officer, I believe, to him. They finally said some action would be taken in the matter. In October, 1917, the Navy finally agreed to discharge certain ones from the Regular Navy and they were free to enroll in the reserve forces.

They then had a reserve force for aviation, and those who were considered qualified by the department made this transfer. After that we went through various stages of training and were sent out to coast stations for patrol duty. During the war we carried on daily patrol work regardless of weather and gained much experience in flying that it would be practically impossible—not impossible, but it would not be at all practicable to subject air craft to the strenuous uses that they would be subjected to in order to fly in all kinds of weather now.

Senator WALSH. In other words, those that did that work had an experience that never could be duplicated unless another war came on?

Lieutenant BRADFORD. Yes; in all probability. At that time the aircraft was undeveloped; I mean it was in its first stages. You were simply going out and taking your chance. But that was all part of the game. Now things are comparatively safe. By their experience the people passed it on down until you have got instructors now. At that time you instructed yourself, practically.

Senator WALSH. Was the entire body of men doing this service men who volunteered and came in from the rank and file of American citizenship?

Lieutenant BRADFORD. Oh, absolutely. I will not say in entirety. Naval aviation at the beginning of the war was made up of a few regular officers who had had very little opportunity to fly. Of course, they had done some experimental work, but it was merely experimental work. But the rest, the operating body, was composed of reserve officers, who were brought right in, trained at Boston Tech and went right in on active duty. I think you could almost count the regular officers in there on your hands. It was brought, you might say, to its present stage of efficiency mainly through the efforts and due to the competence of reserve officers.

Senator WALSH. I suppose the regular Navy itself would admit that.

Lieutenant BRADFORD. Yes.

Senator WALSH. There were very few men available to do this particular work; they had plenty of other work to do?

Lieutenant BRADFORD. Very few. Their services, of course, were needed on board ship at that time. As there was not any flying corps they took in civilians and made a flying corps.

Senator WALSH. Later on was there a school established for the training of reserve officers in the flying corps?

Lieutenant BRADFORD. There was a school at Pensacola.

Senator WALSH. Was there a school at Boston Tech, that you spoke of?

Lieutenant BRADFORD. At Boston Tech.

Senator WALSH. So that as time went on, men who desired to enlist in the naval flying corps were sent to Pensacola and Boston Tech?

Lieutenant BRADFORD. Not who enlisted. Men who enrolled in the naval reserve flying corps were sent there.

Senator WALSH. Did you go to Boston Tech?

Lieutenant BRADFORD. No; I went through before the school at Boston Tech was opened.

Senator WALSH. You had received your commission?

Lieutenant BRADFORD. No; I had not gotten a commission, but I was undergoing training, and had sufficient training to give the department the idea that certain of us had sufficient training to go ahead without going to Tech.

Senator WALSH. When did you get your first commission?

Lieutenant BRADFORD. I got my first commission as ensign in January, 1918.

Senator WALSH. How long did you hold your commission as ensign?

Lieutenant BRADFORD. I think I held it until the following fall, when I was promoted to lieutenant, junior grade.

Senator WALSH. And then?

Lieutenant BRADFORD. April 1, 1919, I was promoted to lieutenant, senior grade.

Senator WALSH. And you had that rank from that time on?

Lieutenant BRADFORD. From that time up to the present time.

Senator WALSH. You are one of those who failed in the examination?

Lieutenant BRADFORD. Yes.

Senator WALSH. That confirms what I said, Mr. Chairman, about the rank being retained by those who failed. Were you informed when your services would be no longer required?

Lieutenant BRADFORD. No notice, other than the fact a circular letter came through about a week ago from the Bureau of Navigation which said that all reserves on shore duty would go on active duty probably the 31st of May and those with the fleet the latter part of June.

Senator WALSH. Since the result of the examination became known last fall, have the men who failed, like yourself, been gradually dropped and put on inactive service?

Lieutenant BRADFORD. Yes.

Senator WALSH. So that you may at any time get notice?

Lieutenant BRADFORD. Yes.

Senator WALSH. Many of them there have gone away out of the service?

Lieutenant BRADFORD. Yes.

Senator WALSH. You happened to be kept on and may be kept on until June 30?

Lieutenant BRADFORD. Probably not after May 31. I do not know.

Senator WALSH. Will you state what preparation, if any, you had to go through in order to get your first commission as ensign? What standard did you have to reach in order to get a commission as ensign?

Senator KEYES. Did you take any written examination?

Lieutenant BRADFORD. Oh, yes; I took a written examination, but this examination was on aeronautic duty only, of course, and applied entirely to work I had been engaged on for the period of my time in the Navy.

Senator WALSH. Then it was your record during that period of time, and the result of that examination along lines you have stated, that led to your being made an ensign: is that right?

Lieutenant BRADFORD. That is correct.

The CHAIRMAN. Right there I would like to bring out this point, Senator: In all your training, did you have any training in the subjects upon which you were examined at this final examination?

Lieutenant BRADFORD. Up to the time of the examination I had never been aboard a battleship or any of the surface craft. From about April, 1919, up to the time of the examinations, I had charge of the lighter-than-air department at Hampton Roads—the naval air station. In that department I had under me about 10 or 15 officers, and an average of from 75 to 100 men. Classes were started for instruction at the naval base, I think, in the latter part of September, or the 1st of October, 1920. They were the first classes, or the first reference to any instructions that I know anything about. So, in 1920, I started to go to those classes. In doing that it required me to leave my office in charge of a yeoman and a messenger. When the commanding officer would call up that department and ask any questions relative to the operations in that department, it was necessary for the answer to be given by some enlisted man who was neither capable nor entirely familiar with the operations in that department.

Therefore, my idea was that your work would count for so much, where you had been in the service five years, where ample opportunity had been given to get a line on your ability, and that that in the long run would be what really counted. So I could not attend classes regularly and run the division efficiently.

The CHAIRMAN. Then you never had an opportunity, independent of your work, to attend such a school and get such knowledge?

Lieutenant BRADFORD. Absolutely not.

Senator WALSH. Were there any other reserve officers that you know of?

Lieutenant BRADFORD. None on that station.

Lieutenant STICKLEY. The only time we were detached from our duty was the week we had the examination.

The CHAIRMAN. I think, Senator, it would be very much better to let one man testify at a time.

Senator WALSH. Yes. I want to lead up to the examination by showing the test that was applied to these boys in giving them their promotions from time to time. When you went from ensign to lieutenant, junior grade, what tests were applied to your work that led to that promotion?

Lieutenant BRADFORD. Your record.

Senator WALSH. There was no examination?

Lieutenant BRADFORD. Absolutely none.

Senator WALSH. Your record means that the commanding officers over you were approving of your work; you were recommended to the department to be promoted, and the department promoted you on the recommendation of all your superiors; is that true?

Lieutenant BRADFORD. That is true. Your records, your fitness reports, cover every day you served in the Navy, making a complete record of what you had done, and the marks, covering your performance whether you were efficient or not. They go into it quite thoroughly.

Senator WALSH. When you were promoted from lieutenant, junior grade, to lieutenant, senior grade, what steps or examinations were given?

Lieutenant BRADFORD. Recommendation by your commanding officer and examination of your fitness reports by the promotion board, Bureau of Navigation.

Senator WALSH. These three steps in your naval career, three promotions, indicated to you that your work was meeting with the satisfaction of your superiors?

Lieutenant BRADFORD. It did.

Senator WALSH. And to all the others; it was a testimonial of work well done?

Lieutenant BRADFORD. Yes.

Senator WALSH. Of satisfactory service?

Lieutenant BRADFORD. Yes, sir.

Senator WALSH. Did nearly all the men who went into the flying corps during the early stages of the war reach at the time of this examination the rank of lieutenant, senior grade?

Lieutenant BRADFORD. A great many of them did.

Senator WALSH. So that during these years nearly all of these men about whom we are concerned had reached that grade?

Lieutenant BRADFORD. Yes.

Senator WALSH. Do you speak for more than yourself?

Lieutenant BRADFORD. I feel, having discussed with other reserve officers this point in a personal way, that what I say is the general feeling of the reserves at large, the reserve flying corps.

Senator WALSH. May I ask if your testimony is personal; have you any interest in your own personal future in being restored to the service, or are you giving your testimony from a nonpersonal standpoint, as far as possible?

Lieutenant BRADFORD. Personally I am, of course, interested in aviation. I have been in it for practically five years, and like it. But all the testimony I have given is based simply on facts which refer not only to me but to other reserve officers. I am simply one of many.

Senator WALSH. At my suggestion that some men be selected to speak for the great body of them, you are one of those?

Lieutenant BRADFORD. I feel that I am.

Senator WALSH. Will you state to the committee how much flying you have done in the years you have been in the service, what the nature and character of your duties have been, and what special assignments have been given to you, to indicate that your superiors considered you especially qualified in aircraft work?

Lieutenant BRADFORD. Something over 500 hours. That is on lighter-than-air craft, of course, with which I have been connected.

Senator WALSH. Explain that please, in order that the committee may understand.

Lieutenant BRADFORD. There are heavier-than-air and lighter-than-air craft. Heavier-than-air includes all planes, and lighter-than-air are airships, balloons, and so forth.

Senator KEYES. We know about that.

Senator WALSH. Your work has been with the lighter-than air?

Lieutenant BRADFORD. Yes.

Senator WALSH. Let me ask you, if you care to express it, what your opinion is about the development of lighter-than-air craft, of its future usefulness, as compared with nonlighter-than-air craft?

Lieutenant BRADFORD. I think it has a wonderful future. I think the Germans demonstrated that very clearly during the war, with their Zeppelins. With the use of hydrogen gas they were very effective against the British fleet, in the bombing raids in England, etc. You can imagine their usefulness if they were inflated with helium. They have a much greater speed and a greater cruising radius than any large surface craft. They can carry—oh, you can build them any size you want. The ones they had could carry around 40 tons of disposable stuff. I mean by that bombs and things of that character.

Senator WALSH. You think it is an indispensable adjunct to any development of a naval program?

Lieutenant BRADFORD. It is the only thing to make its future sure.

Senator WALSH. To what extent has the lighter-than-air branch of the service been lessened in effectiveness or impaired by the dropping of men like you and others? I mean, has there been a serious dent made in its membership?

Lieutenant BRADFORD. At the present time in the regular Navy we have so very, very few officers who have had any experience in the lighter-than-air service—I think you can count them all on one hand.

Senator WALSH. So if the young men who have qualified in the lighter-than-air service from the reserves were dropped out of the service, the Navy would be left with practically only a sufficient number of informed men that you could count on your hands?

Lieutenant BRADFORD. I think the Bureau of Aeronautics will agree with anybody on that point. At the present time the majority of regular officers who

have had lighter-than-air duty the most of it has been of a technical nature. They have not had a sufficient number to give them operating positions and also to gather data in connection with the development of lighter-than-air work.

Senator WALSH. Will you proceed with your other duties?

Lieutenant BRADFORD. I have flown practically all types of lighter-than-air craft. I have had as much experience, and more experience really, than any officer in the Regular Navy that I know of other than on rigid work. On all nonrigid and semirigid work I know I have had quite a good deal more experience than any other regular naval officer.

Senator WALSH. Can you say that of others that have failed in this examination?

Lieutenant BRADFORD. There are others who failed in the examination.

Senator WALSH. Who have had more experience in lighter-than-air work than those that are left in the service in many instances?

Lieutenant BRADFORD. Absolutely.

Senator WALSH. Proceed with your other activities.

Lieutenant BRADFORD. I have had experience with the semirigid craft—that is, the Italian type, and have been given a designation by the Italian Government as pilot of the semirigid airship.

Senator WALSH. What does that mean? What led them to give that designation?

Lieutenant BRADFORD. I worked on the Navy semirigid dirigible, the O-1.

Senator WALSH. Why should the Italian Government take notice of it?

Lieutenant BRADFORD. They had an officer at that time and he considered certain ones were absolutely qualified to handle and fly those ships of that type. He brought the ship over and had charge of its erection and flying here.

Senator WALSH. Proceed.

Lieutenant BRADFORD. To go back to the examinations—

Senator WALSH. No; I want your whole experience. I want to give to the committee a picture of what you have been through, what experience you have obtained, and what the Navy is losing by your being taken out of the service. I am using you only as a type.

Lieutenant BRADFORD. After considerable experience gained by doing patrol duty, by erecting and disassembling airships at Key West—I may say that the most important duties in connection with lighter-than-air craft is the upkeep of the aircraft in the shed; it is very, very important. It is something you can not get a good knowledge of by reading, going over any data that may be collected. There are little things here and there that spring up that are only gained by experience. That is very important. The stations I have been on have probably had better success in the life of their aircraft than most of the other stations, because I have been associated during the greater part of my time with the same personnel, and we have made every effort to bring it up to a high standard.

At the latter part of the war, in August, 1918, I was transferred to the office of the Chief of Naval Operations to assist the officer there who was practically in charge of lighter-than-air work—Commander Coyle; he was the only lighter-than-air officer there. During a great part of the time he was, unfortunately, sick, and he had to spend a month or six weeks at one time in Arizona, so it left me to assist in directing the operations of lighter-than-air craft there. I had that experience, the administrative end.

Since then I have been at Hampton Roads in charge of the department there. Hampton Roads is now the only lighter-than-air station, the only station at which they have any airships. Lakehurst is practically not in operation. We have been very successful there with airships.

Only one person, at the present time, who was with us at Hampton Roads, passed the examination. That is Ensign Cahill now, who was Lieutenant Cahill, of the reserve force. He is the only one left. All the rest failed, the failure being due in great part to the preparations that it was necessary, last May, to make for bombing, when they bombed the German ships.

Senator WALSH. That was just before your examination. The examinations were held on the 16th?

Lieutenant BRADFORD. May 16.

Senator WALSH. On or about the time the test took place?

Lieutenant BRADFORD. They were in June and July, but everybody on the station was busy for months before that getting all equipment ready to operate in connection with this bombing. These bombing tests were considered of the utmost importance to the advancement of aviation. In other words there had

been many discussions as to whether or not the battleship was obsolete, whether it was possible to destroy a battleship by aircraft. The aviation people left nothing undone to be prepared to show the capabilities of aircraft. The examinations were almost a side issue.

Senator WALSH. Have you recently been assigned to some special work by the Navy, indicating that you possessed certain qualifications that were valuable?

Lieutenant BRADFORD. The first part of January—

Senator WALSH. That is, since the examination, since your failure?

Lieutenant BRADFORD. Yes; since the examinations. This past January I was ordered to report to the Bureau of Aeronautics, to write the lighter-than-air part of a manual to be gotten out by the Bureau of Aeronautics, for the guidance of air-station operation and maintenance of aircraft.

Senator WALSH. Will you explain just what that means?

Lieutenant BRADFORD. It is merely a manual which goes thoroughly into details as to the upkeep and operations of various types of aircraft. In other words, you could use the manual to practically run the air station if you were an outsider and did not know anything about it, if you were careful.

Senator WALSH. It corresponds to a textbook?

Lieutenant BRADFORD. Yes.

Senator WALSH. That those in training would study?

Lieutenant BRADFORD. Yes.

Senator WALSH. You were selected because of your experience—but after you had failed in an examination and were slated for dismissal from the Navy—to prepare a manual, a textbook, for the future instruction of men who would enter the service in the years to come. That is what it amounts to.

Lieutenant BRADFORD. I can not say why. I was selected; but I was selected nevertheless to do that work.

Senator WALSH. You are now at Hampton Roads?

Lieutenant BRADFORD. Yes, sir.

Senator WALSH. Let us come now to the examination. Can you call our attention to the law which authorized the taking over into the regular service 500 reserve officers of the naval flying corps?

Lieutenant BRADFORD. Section 3 of the act of June 4, 1920, provides:

In this it says, "For which they may be found qualified," and it was evidently left to the discretion of the Navy Department as to how they should arrive at how they were found qualified. If you can arrive at a man's qualifications when through the total period of his service in the Navy he has done nothing but aviation duty, has had no experience or connection with any other duties, and yet, to find him qualified for transfer, you give him an examination on things for only one of which he had the choice of substituting aeronautics, out of eight subjects, I can not see how they can consider a man qualified at all.

To go back to the act of August 29, 1916, when there was a naval flying corps formed—

Senator WALSH. Perhaps it would be better to call our attention to that first.

Lieutenant BRADFORD. Certain people were allowed to transfer from the Regular Navy into the naval flying corps. That is a part of the Navy. These men could go into that flying corps for aviation duty only, or they could enter the flying corps for all line duty. Those who entered that branch of the service for all line duty, before they were examined, were to have two years' sea duty to prepare them for this examination.

Yet, later, in connection with this examination, you not only had your general regular duties to perform but you were given no extra time to prepare yourself for the examination, and you were examined on all subjects pertaining to the line duties of the Navy, but given no opportunity to prepare other than classes which were more or less of a perfunctory nature.

Senator WALSH. Continue with the reading of that section of the act of 1920.

Lieutenant BRADFORD (reading):

"SEC. 3. That officers holding temporary commissioned and warrant ranks in the Navy and members of the Naval Reserve Force of commissioned and warrant ranks shall be eligible for transfer to an appointment in the permanent grades or ranks in the Navy for which they may be found qualified not above that held by them on the date of transfer, but not to exceed a total of one thousand two hundred commissioned officers in the line, of which number five hundred may be appointed from class five, Naval Reserve Flying Corps, with proportionate number in all Staff Corps as now authorized by law, except that the Medical, Dental, and Supply Corps shall be entitled to such

additional numbers as are necessary to make up the full quota of officers in those corps, as now authorized by law: *Provided*, That officers so appointed to the line of the Navy shall take rank in accordance with their precedence while holding temporary rank, and members of the Naval Reserve Force of commissioned and warrant ranks found qualified for a given rank shall be arranged according to their precedence among themselves and commissioned in the permanent service next after the lowest temporary officer who qualifies for the same rank and is appointed in accordance with the provisions of this act."

The CHAIRMAN. I would like to ask if the same examination was held for all those, including the 1,200 that were transferred, or was there a separate examination held for the 500 transferable from the Air Service?

Lieutenant BRADFORD. Yes; the same examination was given all, sir, with the exception of one subject. The people in aviation were allowed to substitute the subject of aeronautics for one of the eight other subjects, but they were not informed of this fact until shortly before the examinations were given.

Senator KEYES. How long before?

Lieutenant BRADFORD. I think three months.

The CHAIRMAN. Were these other boys, transferred from the other departments, compelled to take the examination in aviation?

Lieutenant BRADFORD. No, sir.

The CHAIRMAN. They made that one exception, the same as you were permitted to make one exception. Is that the point?

Lieutenant BRADFORD. The other people took the regular examination in the eight subjects given.

Senator WALSH. They had no option. These men had the regular examination, with one option. Do I make it clear?

The CHAIRMAN. You had the regular examination with the exception that you had the right to substitute aeronautics for one of those subjects; is that correct?

Lieutenant BRADFORD. That is correct, sir. Here are the subjects: Navy regulations, navigation, seamanship, ordnance and gunnery, engineering, electricity, military law, and international law. Aeronautics could be substituted for just one of those subjects.

Senator WALSH. From June 4, 1920, on you men then knew a law had been passed which was going to lead to your being given a chance for permanent commissions?

Lieutenant BRADFORD. When found qualified.

Senator WALSH. When found qualified; yes.

Lieutenant BRADFORD. Yes, sir.

Senator WALSH. Previous to June 4, 1920, a large number of men who went into the flying corps had resigned or gone on active duty?

Lieutenant BRADFORD. They had.

Senator WALSH. Were any steps taken by your superiors to induce men not to go back to civilian occupations but to remain in the service and to expect ultimately a commission in the regular naval service?

Lieutenant BRADFORD. I do not know that any official steps were taken. I think steps were taken very often by commanding officers to persuade officers under them who were efficient to remain. Of course, it helped them to have efficient officers under them.

Senator WALSH. But there were a group of men who became devoted to the science of aeronautics, and who were ambitious to make a life career of this work, and to get into the regular permanent service; is that true?

Lieutenant BRADFORD. Yes, sir.

Senator WALSH. How soon after June 4, 1920, did you have any official notice of the fact that you were going to have an examination or what steps the department was to take to see if you were qualified under the law?

Lieutenant BRADFORD. It was in September, I think, that the official notice was sent out—September or October.

Senator WALSH. I would like to bring out this point right here: Is it true that even the examination in aeronautics contained questions dealing with lighter-than-air subjects and heavier-than-air subjects, and that there was no discretion given between them?

Lieutenant BRADFORD. In one case that was one of the questions, if I remember correctly, to describe in detail the erection of a seaplane or a C class dirigible. You were given one of two types; it was optional. That was the only thing.

Senator WALSH. Although you were especially trained for lighter-than-air work, you got no different examination than the heavier-than-air men?

Lieutenant BRADFORD. No.

Senator WALSH. And the heavier-than-air men got no different examination than you got, substantially?

Lieutenant BRADFORD. That is right.

Senator WALSH. Proceed.

Lieutenant BRADFORD. While we are on that subject I would like to say if you go into detail and describe thoroughly the erection of a C class airship, from the time it arrives in a crate until the time it is ready to take the air, it will take a large part of one day to write it.

Senator WALSH. That one question, to do it properly, would take one day?

Lieutenant BRADFORD. Yes, sir.

Senator WALSH. How many questions were there in the paper on aeronautics?

Lieutenant BRADFORD. I have not any idea. It seemed to me like there were a hundred.

Senator WALSH. Proceed.

Lieutenant BRADFORD. In August, 1919, the Director of Naval Aviation sent a letter to the commanding officers of all stations—commanders of air forces—stating that examinations would be held and directing the commanding officers to start classes of instruction. That was in August, 1919.

Senator WALSH. Before the law was passed?

Lieutenant BRADFORD. Before the passage of this law; authorizing certain reserve officers to be taken into the regular Navy.

Senator WALSH. That is why I asked you that question before, to show that such an order as that was an encouragement to the men to remain; that there was going to be an ultimate examination, and ultimately an opportunity given to get into the regular Navy.

Proceed with the rest of your history.

Lieutenant BRADFORD. June 4, 1920, Congress passed the act, H. R. 13108, authorizing the transfer of temporary and reserve officers to permanent rank or grade for which they might be found qualified.

Senator WALSH. Under that order of August, 1919, were any classes held at any of the stations, that you know of?

Lieutenant BRADFORD. None that I know of.

Senator WALSH. Did you see that order?

Lieutenant BRADFORD. I do not know.

Senator WALSH. How do you happen to have it in your possession?

Lieutenant BRADFORD. This [indicating] is a résumé of the whole thing.

Senator WALSH. But so far as any active notice being taken of it—

Lieutenant BRADFORD. There were none.

Senator WALSH. Absolutely nothing was done, to your knowledge?

Lieutenant BRADFORD. No.

Senator WALSH. So far as concerns any of the men at any of the stations, it was a dead letter?

Lieutenant BRADFORD. Yes.

Senator WALSH. What was the next step?

Lieutenant BRADFORD. The next step was the passage of the bill in 1920. I would like to bring this out. During the month of June, after the passage of this bill in 1920, there were several classes that were jumped ahead. The reserve officer could not be taken in above the rank of lieutenant, and when he was taken in as a lieutenant he ranked after all other regular officers of the same grade. After the passage of that bill two or three classes were jumped ahead. One class went from ensign to two stripes, I think, in three days. I think I am correct.

Senator WALSH. Will you develop that and show just how that affected reserve officers, like yourself?

Lieutenant BRADFORD. The effect it had on reserves would be this, of course, that you would be junior to all these people who were made two strippers.

Senator WALSH. Up to June 4, 1920, you and the others who were lieutenants, senior grade, were seniors to a large number of regular Navy men who had come from the academy; is that true?

Lieutenant BRADFORD. I think so; yes.

Senator WALSH. As soon as the law was passed these men were jumped in rank over you reserve officers?

Lieutenant BRADFORD. Well, these were men who were not really associated—the reserve officers have been rather a body to themselves. At that time they had not put many regulars into aviation—I mean the two strippers—don't you see, but very, very few of them. While those promoted later on, if they were brought into aviation they would, of course, be senior to us, even though at the passage of the bill we were far senior to them; do you understand?

Senator WALSH. I see. They were not men that were in the flying corps?

Lieutenant BRADFORD. Right after the passage of the bill this happened.

Senator WALSH. What is your explanation; what is the inference you draw from that? You cite it as if it was not a fair thing to you and your associates.

Lieutenant BRADFORD. I simply cite it as an instance.

Senator WALSH. You do not make any comment?

Lieutenant BRADFORD. I have no comment.

Senator WALSH. But it so happens that men who up to that time were in the regular Navy and had a lower rate than you were by that order made your superiors in rank, and if they had been assigned to the flying corps would be superior to you?

Lieutenant BRADFORD. Yes. In connection with that same thing, I might say there is an order out from the Navy Department assigning running mates to various reserve officers, and that these reserve officers, the ones that I am particularly associated with in my class, you might say, were assigned the lowest man in the class graduating from the Naval Academy in 1916.

Senator WALSH. It gave them a standing in the Navy?

Lieutenant BRADFORD. Reserve officers, I am speaking of. Reserve officers on active duty are supposed to be treated in every way similar to an Annapolis man and regular officers.

Senator WALSH. The reserve officer is supposed to be treated exactly the same?

Lieutenant BRADFORD. Yes, sir.

Senator WALSH. When on duty?

Lieutenant BRADFORD. They have no signal numbers, nothing to give them any relative rank, so far as the two stripes—I mean, how are you going to arrive at the exact standing between a reserve with two stripes who has no number, and a regular with two stripes who has a number? So in order to put them in a fair position, to assign them a certain rank while on active duty, a man was picked from the list of the regular Navy and certain groups of officers having had commissions for a certain length of time were given him as a running mate. In other words they ranked with and after him in their own order of seniority.

Senator WALSH. Will you give me an illustration of it; just use a case, Mr. A. and Mr. B. Perhaps the committee understands it?

Senator KEYES. We might as well have it for the sake of the record.

The CHAIRMAN. I think we will have to discontinue the hearing at this point until 10 o'clock to-morrow morning. We will begin at 10, and that will give us two hours.

(Whereupon, at 12.10 o'clock, p. m., the subcommittee adjourned until to-morrow, Friday, April 7, 1922, at 10 o'clock, a. m.)

NAVAL RESERVE FLYING CORPS.

FRIDAY, APRIL 7, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 o'clock a. m., in the committee room, Capitol, Senator L. Heisler Ball presiding.

Present: Senator Ball (chairman) and Senator Keyes; also, Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order. It is understood, of course, that all the witnesses in this matter have been sworn.

Senator WALSH of Massachusetts. Mr. Chairman, I would like to make a digression this morning by calling a witness who is ill, and I do not know how long we should keep him here, and I am going to ask that we suspend with the witness who was testifying yesterday and ask this witness to present himself.

Previous to presenting that testimony, I want to call attention to the order which was referred to yesterday. You will recall that we brought out in evidence that the Navy Department is now out looking for aviators to serve as officers, and through the kindness of the Navy Department they have furnished me with a copy of that order, which is very short and which I will read. It is issued by Thomas Washington, who is the admiral at the head of the Bureau of Navigation. It is dated March 30, 1922, and is as follows:

"Bureau desires 50 officers for next aviation class period. Commanding officers are requested to encourage applications from officers who meet the requirements of part C, chapter 1, section 2, Bunav Manual. Applications must reach Bunav prior 1 May.

"THOMAS WASHINGTON.

"Copy to aid to chief of bureau, planning section, Bureau of Aeronautics.

"Received March 30, 1922."

Captain Williams, is there any suggestion that you desire to make with regard to that?

TESTIMONY OF CAPT. PHILIP WILLIAMS, UNITED STATES NAVY.

Captain WILLIAMS. I do not want to spend any time on it, but here is a group of men who are not in the regular Navy but officers in the reserve and temporary officers. They took an examination to enter the regular Navy. That is the subject under discussion.

Now, the introduction of that letter, in my opinion, has no bearing upon the subject at all. The examination has been held and certain officers have become members of the regular Navy. That letter is issued from the Bureau of Navigation to commanding officers throughout the service and not to solicit applicants from the reserve or from the temporaries but to encourage those officers who have already passed the examination to take the course in aviation. They are two totally different subjects.

Senator WALSH of Massachusetts. You mean to encourage the academy graduates—young men?

Captain WILLIAMS. No, sir; not at all.

Senator WALSH of Massachusetts. Where are you going to get those 50 men?

Captain WILLIAMS. Out of the regular service.

Senator WALSH of Massachusetts. In other words, men who have a less rank than ensign now, who are as available for officers or for rank as some officers in the Aviation Corps, are invited to take this training?

Captain WILLIAMS. No; we are asking men who now hold commissions in the line to train for aviation duties.

Senator WALSH of Massachusetts. Is that it exactly? Of course, I offer it for this purpose—for many purposes, but particularly the terrible financial waste of disposing of 50 trained men of five years' experience, and I expect to show the enormous expense that it would be to the Government to train 50 more men to take their places. However, we will get to that later.

Captain WILLIAMS. Let us presume that the Navy requires, or tries to produce, aviators with seagoing qualifications in the future. Now—

Senator KEYS (interposing). May I interrupt you? Is that the policy of the Navy?

Captain WILLIAMS. That is undoubtedly the policy.

Senator WALSH of Massachusetts. And that, pardon me, is just the complaint that every one of these young men will testify to—and I am going to bring 200 of them here, if necessary. They have never been told about that policy. They have been deceived and misled, and if they had known of that policy on armistice day they would all have gone back to their regular businesses. They never went into the Navy for the purpose of navigating battleships. They devoted themselves to aviation. They have been deceived and misled, and it is one of the chief grievances in that they never got that information, never conceived of it, and never believed it was possible. They would not have wasted their time for five years on it, because that was not their vocation and was not their interest.

Captain WILLIAMS. I was talking more particularly about the introduction of that letter. It must be apparent to the committee that the order sent out—I think you said the 6th of March—for the purpose of asking people to take the course in aviation was to get people who were in the service to take the course in aviation, not to bring in at this time people who are not in the service. In other words, that letter was addressed to officers holding commissions in the Regular Navy, not to people outside of the Regular Navy.

Senator WALSH of Massachusetts. But the letter shows that you need and want 50 officers trained in aviation, does it not?

Captain WILLIAMS. And many more, but we need those officers trained in other things besides aviation.

Senator WALSH of Massachusetts. And I hope that Congress will have something to say about making men who are trained in aviation know how to run battleships before they fly.

Captain WILLIAMS. They examined 295, and have 200 of them. These gentlemen, I understand, represent gentlemen who did not succeed.

Senator WALSH of Massachusetts. There were 295, you say. You know very well that every single one of them failed; and to demote a man two points—from lieutenant, senior grade, to ensign—is a failure, and there were very few of these men of the 295 that retained the rank they had.

Captain WILLIAMS. I do not know that this is a time in the course of the hearing to bring it in, but we examined not only aviators but a good many others, and they made a most excellent showing, just as the aviators made an excellent showing; in fact, the aviators made a better showing than almost anybody else—the percentage of aviators who took the examination and who passed this examination is larger than the percentage of any other class of men who took it.

Senator WALSH of Massachusetts. I understand so. Of course they were superior educated men than most of the men who go into the reserve, the reserve officers in the Regular Navy; is that not true?

Captain WILLIAMS. In spite of all these handicaps, a larger percentage of aviators succeeded in passing those examinations than the other classes that took it.

Senator WALSH of Massachusetts. Now, let me ask you a question right there. Is it not true that a larger per cent succeeded because your examiners remarked the papers and were ashamed to make known but very few that they examined?

Captain WILLIAMS. Well, I presume they did remark the papers. I do not suppose it is fair to those examiners to accuse them of undue severity in an examination which was too difficult, and then to accuse them of remarking the papers, or of undue leniency. I do not think that is fair to those gentlemen.

Senator WALSH of Massachusetts. But it is some evidence, if only 9 men out of 200, or 10 men, or 20 men, pass an examination—it is some evidence that the examination was a very severe one.

Captain WILLIAMS. It is some evidence.

Senator WALSH of Massachusetts. And if the board of examiners only remarked those who failed and brought up men who failed to pass and made them ensigns, and did not mark the men who passed and make them lieutenants, it is some evidence of discrimination, is it not?

Captain WILLIAMS. It is inconceivable to me why there should be any discrimination. Here was an examination prescribed by law, an examination not for aviators, not for radio gunners, not for chief boatswains, not for chief gunners, but an examination which the law prescribed was to make naval officers.

Senator WALSH of Massachusetts. Well, could the Navy have given a separate examination to those in the flying corps? Could it, or could it not? If you did not have any power in the matter, we are simply wasting our time here.

Captain WILLIAMS. It is a question of what you mean by "could."

Senator WALSH of Massachusetts. Could the naval officers—the Bureau of Navigation—have given a separate and distinct examination on aviation subjects alone to these reserve officers with the flying corps?

Captain WILLIAMS. Had the Navy Department done it—

Senator WALSH of Massachusetts. Well, could they have done it? Never mind whether they did it. We know that they have done it.

Captain WILLIAMS. Excuse me, Senator. The question is not as simple as that. We have not only to absolutely obey the law as we understand it, but we also have, to the best of our honest belief, to carry out the intent of that law.

Senator WALSH of Massachusetts. You can answer my question without any technicality. We are all plain people here and not naval experts. You can tell me whether or not the naval officers could have given these boys an examination on aviation subjects or not. That can be answered yes or no.

Captain WILLIAMS. We would not have complied with the law.

Senator WALSH of Massachusetts. Then, to comply with the law that Congress passed, you claim that it was necessary to give them an examination on general navigation.

Captain WILLIAMS. Yes.

Senator WALSH of Massachusetts. You do?

Captain WILLIAMS. I do.

Senator WALSH of Massachusetts. Now, why did you not tell these boys that?

Captain WILLIAMS. These boys, as I shall prove, had every information, every form of information, within the power of the Government to give them, and that information was so widely spread that—I speak in general terms—I think 60 per cent of the young men, exactly under the same circumstances, passed this examination, and the others are represented here.

Senator WALSH of Massachusetts. So the law provides for examinations of reserve officers in the Army and Marine Corps differently from the Navy?

Captain WILLIAMS. I am unable to say as to that.

Senator WALSH of Massachusetts. Do you dispute my assertion that the officers of the Reserve Corps, of the Flying Corps—the reserve officers of the Flying Corps and Marine Corps—had a separate and distinct examination from that of the reserve officers of the Army?

Captain WILLIAMS. I have no knowledge whatever as to that.

Senator WALSH of Massachusetts. Why have you not, as you are interested in this subject and in this work? That is what we are trying to find out.

Captain WILLIAMS. My knowledge on this subject is fairly deep.

Senator WALSH of Massachusetts. And yet you do not know how the very same type of officers were treated in the matter of examinations?

Captain WILLIAMS. I consider it of no bearing whatever. The law says:

"That officers holding temporary commissioned and warrant ranks in the Navy and members of the Naval Reserve Force of commissioned and warrant ranks shall be eligible for transfer to an appointment in the permanent grade or rank in the Navy for which they may be found qualified."

And so forth. And that is what we strove to do. Now, at the time that this was contemplated, at the time that the number of officers was reduced, the ships were very much undermanned, and it was necessary to bring up the list in a way that we would not have ordinarily done, to bring up the number of officers by a method which is not ordinarily adopted. The seriousness of the situation, and the fear of any form of injustice to those men who have not had a naval academy education, was such that the department got out a

letter calling the attention of all officers to the seriousness of this business. That was dated—

Senator WALSH of Massachusetts. Of what business, if you please?

Captain WILLIAMS. May I read it now?

Senator WALSH of Massachusetts. Yes; if you please.

Captain WILLIAMS. It is dated July 6, 1920, and is as follows:

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., July 6, 1920.

From: Bureau of Navigation.

To: All ships and stations.

Subject: Transfer of temporary and reserve officers to the Regular Navy.

1. Twelve hundred temporary and reserve officers are to be transferred to the permanent line of the Navy in accordance with the act of Congress approved June 4, 1920. Staff officers will be transferred in proportion.

2. The selection of these officers and their introduction into the permanent service is one of the most difficult and important personnel problems with which the Navy has had to deal in recent years.

3. The responsibility for making the selections rests entirely with the regular officers of the Navy. If they do not devote sufficient time and thought to this duty, a very serious damage to personnel standards will result. The bureau desires the earnest cooperation of all officers in this important duty.

4. It is intended to publish the conditions of the examination very shortly. The date will be sufficiently advanced to give applicants time to prepare and also to permit senior officers under whom applicants are serving to make careful and well-considered fitness reports.

5. It is directed that as soon as information concerning this examination is issued all possible means be taken to assist the applicants to prepare themselves for entrance into the permanent Navy. Schools and classes will be established, hours regulated, instruction given, and supervision exercised as much as practicable.

6. All officers who can materially assist in the solution of this problem are requested to report to the bureau the measures they have adopted.

THOMAS WASHINGTON.

Senator WALSH of Massachusetts. What did you say the date of that is?

Captain WILLIAMS. That is dated July 6, 1920.

Senator WALSH of Massachusetts. Will you have your department furnish us with the schools which were established, the officers that you assigned to instruct these men, the subjects as to which instructions were given, and how many attended those instructions?

Captain WILLIAMS. Yes; I shall be glad to do that.

Senator WALSH of Massachusetts. Now, I understood you to say that the naval authorities had no discretion in the matter of the examination of these young men?

Captain WILLIAMS. No; I did not.

Senator WALSH of Massachusetts. Did you not say that?

Captain WILLIAMS. No, sir.

Senator WALSH of Massachusetts. Where did you get your law or your authority that gave discretion in the one subject of aviation?

Captain WILLIAMS. I did not say that we had no discretion.

Senator WALSH of Massachusetts. I understood you to say so immediately and before.

Captain WILLIAMS. No, sir; I did not intend to say that.

Senator WALSH of Massachusetts. Did you not say to this committee that the naval authorities could not have given these men, if they had chose to, simply an examination in aviation?

Captain WILLIAMS. That is a different thing, Senator, from saying that the Navy Department had no discretion.

Senator WALSH of Massachusetts. Well, I may not be able to understand the technical terms of the Navy, but when I asked you if you had discretion in the form and kind of examination, you knew that I meant whether you could have given them a different examination than you did give them, did you not? You did exercise discretion on one subject?

Captain WILLIAMS. We must exercise discretion.

Senator WALSH of Massachusetts. Now, where in the law do you have that authority? Why did you not make these men that were taking the examination in line duties, take aviation—as well as make those men take navigation? Where is your authority to make that distinction?

Captain WILLIAMS. Why, of course, we had discretion.

Senator WALSH of Massachusetts. Of course, you have. Now you had discretion in fixing the amount of points that you would give the paper on aviation, have you not?

Captain WILLIAMS. Yes, sir.

Senator WALSH of Massachusetts. How many points did you give the paper on aviation, out of 100?

Captain WILLIAMS. The relative weight of 100.

Senator WALSH of Massachusetts. How many?

Captain WILLIAMS. One hundred.

Senator WALSH of Massachusetts. You gave aviation 100?

Captain WILLIAMS. Yes, sir.

Senator WALSH of Massachusetts. Out of how many total points which the candidates had to make?

Captain WILLIAMS. One thousand.

Senator WALSH of Massachusetts. In other words you allowed 10 per cent on the maximum marking for a perfect paper on aviation by these boys; is that true?

Captain WILLIAMS. No; let us look at the other side of the picture—

Senator WALSH of Massachusetts. No; let us go on into that matter.

The CHAIRMAN. What percentage was allowed for navigation?

Captain WILLIAMS. One hundred per cent. The history of this examination is this: The examination was taken not only by aviation officers but by a number of other classes of officers. No special exceptions were made for those other classes of officers.

Senator WALSH of Massachusetts. Pardon me; was not an exception made for officers in the Construction Corps?

Captain WILLIAMS. That was a different examination altogether. That had nothing to do with the subject.

Senator WALSH of Massachusetts. So you had discretion?

Captain WILLIAMS. No, sir.

Senator WALSH of Massachusetts. When it came to determining the examination in the Construction Corps you give an entirely different class of instructions?

Captain WILLIAMS. These gentlemen are not constructors.

Senator WALSH of Massachusetts. Why did you not require the Construction Corps to take the examination?

Captain WILLIAMS. That is totally different, just as the Army and the Marine Corps. We are discussing now examinations for the line in the Navy. A constructor does not have to take aviation. We are talking about the examination for putting people in the direct line in the Navy. The constructors are entirely different propositions and outside of the subject.

When the question came up about this earnest study of the subject of aviation officers, we gave them this opportunity of taking aviation in preference of any of the other professional line service. We did not give that privilege to these other classes of officers who took this examination, and within an area of what we considered possible, we thought that we had made the competitive chances for these aviation officers equal to the competitive chance of officers of other classes. I only submit that as a result of this examination, the aviators had a chance that the other classes did not have in this aviation professional choice, and a larger percentage of aviator officer passed the examination than any other class. If that is an injustice to the aviators, I am unable to see it.

Senator WALSH of Massachusetts. They all ought to have passed, and would have passed if the examination had been upon aviation subjects, because their five years of experience was invaluable, and their records, which I am going to produce here, show that they were men who had been commended again and again, and promoted by your department.

Captain WILLIAMS. One moment; you made the positive statement that they would all have passed in aviation—

Senator WALSH of Massachusetts. You can not explain to me why you promoted these men three times in three years on the ground of faithful and loyal service and efficiency, and then gave them a technical examination and rejected nearly half of them as being even unfit to be ensigns.

Captain WILLIAMS. According to your theory, then, Senator, it would have been impossible for these men of whom we are talking to have failed in aviation.

Senator WALSH of Massachusetts. I claim that you were grossly negligent, and committed gross injustice to the Government, to have raised these men to lieutenant, senior grade, and said they were all competent and fit to be, and then later to have told them they were not fit to be ensigns even, and to have rejected them from the service. At either one of the times you were right or you were wrong, and we are going to find out which time you were wrong and which time you were right.

The CHAIRMAN. I would like to ask a question as to the other examinations. Were there any reduced the same as in aviation?

Captain WILLIAMS. Most assuredly.

The CHAIRMAN. Because the same injustice would be done all if that be true, you see.

Captain WILLIAMS. We were holding an examination for officer material in the Navy. A supply of that was most badly needed, and a supply of that is still badly needed, which in the 75 years during which the Naval Academy has been in existence, in my opinion, has never been felt before.

We held that examination in 1921. We had at that time, as available material, I think, 22,000 reserve officers. We had a large number of temporary officers, and we sought by the only means in our power an examination to get as many and as valuable officer material as we could find. We were bent on doing justice to those individuals who took the examination, but we were also bent, and are still bent, on seeing that those positions in the Navy are filled by the best material that we can find. The history of this country, and the history of every other country, has proved that these men must have certain requirements, not only the requirements of knowledge, of education, and character, but certain qualifications of "sticktoitiveness" and ability to play the game. That we must demand.

Now, we held this examination. The examination was held by the very best officers that we could find for the purpose, and it was held in the very best way that experience has taught us to hold it. We were dealing with a mixed crowd of men of different experiences, and one experience, from our point of view, or the naval point of view, was quite as valuable as the other.

Senator WALSH of Massachusetts. I do not want to interrupt the officer, but I do not think we are making much progress in putting in the defense now.

Senator KEYES. Mr. Chairman, it seems to me that we have wandered off here. We have witnesses who want to be heard, and the Senate meets at 11 o'clock this morning, and it seems to me that if you have witnesses here we should proceed with them, not that you will not have ample opportunity later, Senator.

Senator WALSH of Massachusetts. I understand, Senator.

Captain WILLIAMS. I have only one thing to suggest. Let me suggest that Senator Walsh familiarize himself with the matter, or let him give me the number of officers who failed—

Senator WALSH of Massachusetts. I have all that information.

The CHAIRMAN. I would just like to state for the committee and for the benefit of all, that it is important that we get just such a statement as the officer, Captain Williams, was giving us. These men are entering the Navy, you must remember. I appreciate the fact that an aviator can not continue when he enters the Navy all his life. An aviator probably can not continue in active aviation after a limited age. He has got to have some experience in other lines too.

Senator WALSH of Massachusetts. If you will pardon me, Mr. Chairman, I am going to offer in evidence here the very statement he has made, and the replies that have come to me from the department. It will all be put in evidence. I have a list of the correspondence containing the whole Navy side of it, which I intend to put in. I would not have gone ahead with these hearings if I thought it was conclusive. I do not think their answer in any way conclusive. So all of that material evidence will be presented here.

Captain WILLIAMS. Would it alter the point of view at all if we showed that many of these gentlemen failed in aeronautics?

Senator WALSH of Massachusetts. Yes; but there is a time for it.

The CHAIRMAN. I would suggest that we go on with the examination of the witness, and then let this other part come in in order at the end. It is important to the hearing but this is hardly the proper place for it.

Senator WALSH of Massachusetts. Mr. Chairman, I will now ask Captain Prell to take the stand.

**TESTIMONY OF LIEUT. ALVIN O. PREIL, EIGHTEENTH STREET
AND GOOD HOPE ROAD, ANACOSTIA, D. C.**

Senator WALSH of Massachusetts. What is your full name?

Lieutenant PREIL. My name is Alvin O. Preil.

Senator WALSH of Massachusetts. What is your age?

Lieutenant PREIL. Twenty-five.

Senator WALSH of Massachusetts. What is your home address?

Lieutenant PREIL. Washington, D. C.

Senator WALSH of Massachusetts. And your parents live here?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Where did you live before you entered the Navy?

Lieutenant PREIL. I was at Boston in the Tech school.

Senator WALSH of Massachusetts. The School of Technology at Boston?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What class were you in at the outbreak of the war?

Lieutenant PREIL. Junior class.

Senator WALSH of Massachusetts. That means you had been there for three years?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What course did you take in the Boston School of Technology?

Lieutenant PREIL. Steam engineering.

Senator WALSH of Massachusetts. What education had you had prior to going into the School of Technology?

Lieutenant PREIL. Public school, and in the McKinley Manual Training School.

Senator WALSH of Massachusetts. Here in the city?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. When did you enlist in the Navy?

Lieutenant PREIL. The 27th of April, 1917.

Senator WALSH of Massachusetts. Immediately after the outbreak of the war?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What branch of the service did you enter?

Lieutenant PREIL. Aviation.

Senator WALSH of Massachusetts. Where did you enlist?

Lieutenant PREIL. Here in Washington.

Senator WALSH of Massachusetts. What rank did you receive on your introduction into the service?

Lieutenant PREIL. I came in as seaman, second class.

Senator WALSH of Massachusetts. From that time on will you describe to the committee your duties and your experiences in the science of aeronautics, and your promotions and advancements in the service up to the time of the examination? Then I will stop you.

Lieutenant PREIL. As I said, I enlisted on the 27th of April, 1917. I was ordered to Boston Tech, the class beginning the 1st of October, 1917, for ground-school aviation. From there I went to Hampton Roads, and at Hampton Roads we had a bad winter—the winter of 1917 was bad. Due to this we were ordered to Pensacola, Fla. I qualified as a naval aviator on the 24th of March, 1918, and was commissioned the 28th of March, 1918. I requested orders for France, but due to my ability was kept as an instructor in aviation.

Senator WALSH of Massachusetts. That is, you instructed others?

Lieutenant PREIL. Yes, sir; I instructed in this science until the armistice.

Senator WALSH of Massachusetts. Where?

Lieutenant PREIL. At Pensacola.

Senator WALSH of Massachusetts. How many men did you instruct up to the time of the armistice?

Lieutenant PREIL. That I can not say, offhand.

Senator WALSH of Massachusetts. Well, give your best judgment.

Lieutenant PREIL. We had close on to 2,000 students that came through.

Senator WALSH of Massachusetts. You were one of other instructors who handled some 2,000 men?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. How many instructors would you say, altogether, handled those 2,000 men?

Lieutenant PREIL. I should say probably 35 instructors.

Senator WALSH of Massachusetts. So that you were then considered by the Navy Department to have such a knowledge of aircraft and of piloting that you were delegated to break in and train new recruits in the business of flying ships?

Lieutenant PREIL. That is right; yes, sir.

Senator WALSH of Massachusetts. For how many months were you engaged in training these young men who came to you for instruction?

Lieutenant PREIL. I was commissioned the 28th of March, and from that date to the armistice I was instructor.

Senator WALSH of Massachusetts. How many months was that?

Lieutenant PREIL. April to November—seven months.

Senator WALSH of Massachusetts. Were you promoted at all?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Just tell us of your promotions; when were you made ensign?

Lieutenant PREIL. I was made ensign the 28th of March, 1918, and junior-grade lieutenant October 1, 1918.

Senator WALSH of Massachusetts. Why were you made junior lieutenant?

Lieutenant PREIL. My fitness report showed that I was qualified to be an instructor and good officer material.

Senator WALSH of Massachusetts. That is, the report that your superiors made to the department indicated that you had progressed so favorably and so well that you were entitled to increased rank?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. When were you promoted from lieutenant, junior grade, to lieutenant, senior grade?

Lieutenant PREIL. That was dated July 1, 1920.

Senator WALSH of Massachusetts. And for what reason were you then promoted?

Lieutenant PREIL. The same reason—good officer material.

Senator WALSH of Massachusetts. Did you apply for these promotions or did they come voluntarily?

Lieutenant PREIL. They came voluntarily; absolutely.

Senator WALSH of Massachusetts. Now, you might state—because it is important in view of the fact that others have been demoted here—what the salary of an officer in the flying corps was and is, first, ensigns, then junior lieutenants, and then senior lieutenants. It has a bearing on these demotions and an effect upon these men.

Lieutenant PREIL. When we first started we were getting \$35 a month.

Senator WALSH of Massachusetts. Seaman?

Lieutenant PREIL. Yes, sir; I was flying as seaman for \$35 a month, and was then made an ensign, and my total pay was about \$240 a month; then as junior-grade lieutenant my total pay was about \$350 a month. As senior lieutenant my total pay is about \$420 a month. That is the total pay.

Senator WALSH of Massachusetts. You are now a senior lieutenant?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. You might at this time tell us how you received this affliction which you are suffering from now.

Lieutenant PREIL. Through an accident.

Senator WALSH of Massachusetts. What accident; what kind of accident?

Lieutenant PREIL. The airplane caught fire and I inhaled the fumes trying to put out the fire.

Senator WALSH of Massachusetts. What organs have been affected by this disorder?

Lieutenant PREIL. The vocal organs are paralyzed and my lungs are infected.

Senator WALSH of Massachusetts. When did this happen?

Lieutenant PREIL. The 16th of December of last year.

Senator WALSH of Massachusetts. So, in December last, after you knew you had failed in your examinations, but were still retained in the service, this accident happened to you?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. When do you expect to go out of the service?

Lieutenant PREIL. With the rest of them; not later than the 1st of June.

Senator WALSH of Massachusetts. Since you have been in the service have you married?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And have you a family?

Lieutenant PREIL. I have two children.

Senator WALSH of Massachusetts. Did you contemplate devoting your career to aviation?

Lieutenant PREIL. To aviation; yes, sir.

Senator WALSH of Massachusetts. Have you had an attachment for this service?

Lieutenant PREIL. Always.

Senator WALSH of Massachusetts. Have you any other occupation or vocation in life but this?

Lieutenant PREIL. No, sir; not any.

Senator WALSH of Massachusetts. What are you going to do now when you get out of the service, do you know?

Lieutenant PREIL. No, sir.

Senator WALSH of Massachusetts. Have you any means or any money?

Lieutenant PREIL. A little that I have saved; it does not amount to anything.

Senator WALSH of Massachusetts. How old are your children?

Lieutenant PREIL. One is 3, and the other is a year and a half.

Senator WALSH. Were you ever informed, up to the time of this examination or during the time you remained in the service, that you would, in order to get a permanent commission, have to qualify the same as line officers in the Navy, and have a knowledge of navigation and navigation subjects, that that was required?

Lieutenant PREIL. Not to my knowledge; no, sir.

Senator WALSH. Would you have remained after the armistice in the flying corps if you had supposed that you would have to pass an examination in general navigation?

Lieutenant PREIL. No, sir; I would not have, because I could not have passed the examination. I never have been at sea, and have never been on board a ship in my life.

Senator WALSH of Massachusetts. You know nothing about those subjects?

Lieutenant PREIL. No, sir; absolutely not.

Senator WALSH of Massachusetts. Will you tell us something of your knowledge—and you must be frank about this, because the committee wants to know your record—tell us frankly your record in aviation; what branches of the science have you specialized in, what experience in flying, the number of hours, and other things that you think have made you a useful member of the Flying Corps of the Navy.

Lieutenant PREIL. I have been a division commander and squadron commander.

Senator WALSH of Massachusetts. Explain what that means—division commander and then squadron commander.

Lieutenant PREIL. Each squadron has from two to three divisions, or did have during the war.

Senator WALSH of Massachusetts. First begin with the division; what is a division commander?

Lieutenant PREIL. A division commander is a man who has a part of a squadron.

Senator WALSH of Massachusetts. And how many men are in that?

Lieutenant PREIL. That varies. Sometimes I have had as high as 200 men in a division.

Senator WALSH of Massachusetts. So you have had at times 100 or 200 men, and you have been division commander?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What were those 200 men; what was their rank and duties?

Lieutenant PREIL. Among them were probably 12 to 15 officers.

Senator WALSH of Massachusetts. Under you?

Lieutenant PREIL. The rest of them were aviation mechanics, carpenters' mates, riggers, etc.

Senator WALSH of Massachusetts. But you would have charge of all the property; you were the man in charge of that property?

Lieutenant PREIL. Yes, sir; such as machines, etc.

Senator WALSH of Massachusetts. You held that position of division commander and were promoted to squadron commander. What is a squadron commander?

Lieutenant PREIL. That is the officer in command of the entire squadron. He has sometimes 16 planes under him, and the officer material, which ranges from 10 to 20 officers—two or three hundred men. In other words, you have the whole squadron directly under your command.

Senator WALSH of Massachusetts. Where were you in command of the squadron?

Lieutenant PREIL. At Pensacola.

Senator WALSH of Massachusetts. Where were you in command of the division?

Lieutenant PREIL. At Pensacola.

Senator WALSH of Massachusetts. Tell us what other experience you have had.

Lieutenant PREIL. After the war I saw that gunnery and bombing was going to amount to something, so I began studying some. I took up a special course in gunnery and bombing and became an instructor in theoretical and practical bombing.

Senator WALSH of Massachusetts. Pardon me. How many men became instructors in bombing?

Lieutenant PREIL. There were only two of us.

Senator WALSH of Massachusetts. Only two of you?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. When you leave the service will there be any other instructor left?

Lieutenant PREIL. Yes, sir; they have another instructor now.

Senator WALSH of Massachusetts. Whom you have instructed?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. You yourself have instructed the man who takes your place?

Lieutenant PREIL. Yes, sir; I instructed the first three classes.

Senator WALSH of Massachusetts. Is it not a fact that all of the men who have been left in the service to take your place are men like you, trained and taught to fly?

Lieutenant PREIL. To a great extent; yes, sir.

Senator WALSH of Massachusetts. And most of those men are academy graduates?

Lieutenant PREIL. Yes, sir; the first three classes were academy men.

Senator WALSH of Massachusetts. And you reserve men were kept along in the service after the armistice to instruct the academy graduates, and as soon as they got enough of this, this examination came on and you are going out?

Lieutenant PREIL. Yes, sir; I may mention that in 1919 we requested that we be sent to sea or be given an opportunity to study for this advancement, and never received any answer from the bureau.

Senator WALSH of Massachusetts. That is very important.

Lieutenant PREIL. By the way, Congressman Hicks was in Pensacola and we gave him that request.

Senator WALSH of Massachusetts. That was in 1919?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And you never received a reply?

Lieutenant PREIL. Not even an answer; no, sir.

Senator KEYES. May I ask if you know that that request that you gave Mr. Hicks ever reached the department?

Lieutenant PREIL. I do not know; no, sir.

Senator WALSH of Massachusetts. You instructed the first three classes from the academy in bombing?

Lieutenant PREIL. Yes, sir; theoretical and practical bombing.

Senator KEYES. Was this at Pensacola?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Do you mean this last year?

Lieutenant PREIL. No, sir; the year before that. I then took up a course of training in torpedoes—torpedo training, and became a torpedo pilot. I was ordered to Yorktown to participate in the ex-German ship bombing.

Senator WALSH of Massachusetts. You mean you were ordered to participate in bombing the battleships off the coast here last spring?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Was your selection for that work considered in the Navy as an indication that your superiors considered you especially qualified?

Lieutenant PREIL. I was ordered from Washington up there; yes, sir.

Senator WALSH of Massachusetts. And, of course, that was an exhibition of bombing which everybody in the Navy was interested in?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And there was a great desire to make a splendid showing?

Lieutenant PREIL. Yes, sir; a good showing was desired to prove to the "old Navy" what aviation could do.

Senator WALSH of Massachusetts. Did you go on that; tell us about that?

Lieutenant PREIL. I participated in every bombing flight that the Navy made. During our stay in Yorktown we did experimental torpedo dropping for the bureau. Then we were ordered back to Hampton Roads.

Senator WALSH of Massachusetts. Is there any man in the flying corps of the Navy that you know of, who has had more experience in bombing than yourself?

Lieutenant PREIL. There is probably one.

Senator WALSH of Massachusetts. Was he a reserve?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. He was a reserve officer?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What has happened to him?

Lieutenant PREIL. He was fortunate enough to pass examination.

Senator WALSH of Massachusetts. Has he been demoted in rank?

Lieutenant PREIL. Yes, sir; he is junior grade lieutenant.

Senator WALSH of Massachusetts. He was demoted from senior to junior grade. Now, have you covered the field of your activities and your experience and your knowledge?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Did you take this examination?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What opportunity did you have to study and prepare for this examination?

Lieutenant PREIL. I would like to explain that we were ordered to Yorktown in August of 1920—

Senator WALSH of Massachusetts. After this law was passed in June you were ordered to Yorktown?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What for?

Lieutenant PREIL. To build a new torpedo station and prepare for this bombing.

Senator WALSH of Massachusetts. To prepare for the bombing which took place the following May?

Lieutenant PREIL. It was June and July, I think, that the bombing took place. At this station we had nobody to instruct us. We tried to learn the subjects out of the books. A month before the examinations were held a Regular naval officer was ordered there, Lieutenant Davis, who is in Pensacola at present, to give us instruction in navigation and seamanship, gunnery, etc. Up to that time we had nobody. They were all reserves.

Senator WALSH of Massachusetts. And you had never studied those subjects?

Lieutenant PREIL. I did not know anything about them; no, sir.

Senator WALSH of Massachusetts. And no opportunity was given you?

Lieutenant PREIL. No, sir.

Senator WALSH of Massachusetts. Were you relieved from any duties during that time?

Lieutenant PREIL. Yes, sir; a week before the examination came off we were given permission—

Senator WALSH of Massachusetts. Permission to lay off from your regular duties?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. But up to that week, did you have to do your regular duties just the same?

Lieutenant PREIL. Absolutely everything.

Senator WALSH of Massachusetts. And were you stationed at a place where there was special activity because of the preparation for bombing?

Lieutenant PREIL. No, sir; we had nobody——

Senator WALSH of Massachusetts. I mean, was your stay especially active in the matter of getting ready for the bombing?

Lieutenant PREIL. Yes, sir; bombing and torpedoing.

Senator WALSH of Massachusetts. What is the difference between bombing and torpedoing.

Lieutenant PREIL. A torpedo weights from 1,600 to 2,000 pounds and is dropped about 12 feet off the water. The bomb is usually dropped from five or six thousand feet, and is dropped straight down. I would like to mention here that the men who are sent down to Pensacola for aviation training are relieved from all duty for a period of six to eight and sometimes nine months, except aviation; we were not relieved one day, to my knowledge, except the week I mentioned before.

Senator WALSH of Massachusetts. You say that the men who were sent down to Pensacola were usually relieved from duty?

Lieutenant PREIL. All duty, except aviation duty.

Senator WALSH of Massachusetts. Why is that?

Lieutenant PREIL. So that they can learn the art of aviation.

Senator WALSH of Massachusetts. In other words, the men who are being schooled and trained in the art of aviation are relieved of every duty except flying?

Lieutenant PREIL. Every duty except flying, and ground-school work, such as bombing, gunnery, and theoretical work.

Senator WALSH of Massachusetts. So the Navy, when it is getting ready to commission a man as flyer, relieves him of everything but that work?

Lieutenant PREIL. These men are commissioned line officers of the Navy.

Senator WALSH of Massachusetts. But they are going to qualify for the flying corps?

Lieutenant PREIL. Yes, sir; they are relieved of all duty to accomplish the qualifications for the Flying Corps.

Senator WALSH of Massachusetts. Let me ask you about your examination. Did you undertake to make answer to the questions on aviation?

Lieutenant PREIL. I answered them; yes, sir.

Senator WALSH. Will you tell the committee about the length of time of the examination on the subject of aviation?

Lieutenant PREIL. The aviation examination was very long, in fact, too long.

Senator WALSH of Massachusetts. Do you know whether you were able to finish that paper or not?

Lieutenant PREIL. I was able to finish aviation, but I did not answer the questions in the way I should have. I had to hustle through.

Senator WALSH of Massachusetts. Was there a requirement to write out all the questions?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And how much time did it take to write out the questions before you made answers?

Lieutenant PREIL. Probably half the time, I should say.

Senator WALSH of Massachusetts. Was that true of all the questions in all the papers?

Lieutenant PREIL. All of them; yes, sir.

Senator WALSH of Massachusetts. Do you know why that requirement is made?

Lieutenant PREIL. No, sir; I do not.

Senator WALSH of Massachusetts. What were the other subjects that you were examined in, that you had had no practical experience with, and which you had been given no opportunity to study except at such times as you were able to take from your regular duties?

Lieutenant PREIL. Navigation, engineering, seamanship, ordnance, electricity, naval regulations, and military and international law.

Senator WALSH of Massachusetts. Now, up to the time of the examination, and in fact up to the present time, has anything ever been entered against your record that you know of of a critical or derogatory nature?

Lieutenant PREIL. No, sir; nothing.

Senator WALSH of Massachusetts. And what commendations, if any, have you received from your superior officer during the time you have been in the Navy?

Lieutenant PREIL. Only those I have received with my fitness reports——

Senator WALSH of Massachusetts. But do you know from them that you have been commended repeatedly by your superior officers?

Lieutenant PREIL. Yes, sir; I do know that.

Senator WALSH of Massachusetts. I do not know that you told us the number of hours that you think you have flown in the air.

Lieutenant PREIL. I have flown probably a thousand hours in the air.

Senator WALSH of Massachusetts. Will you tell us what number of hours are required in order to get a commission in the Flying Corps?

Lieutenant PREIL. It does not go by hours. You have a prescribed course to take, and when you complete that course then you qualify as an aviator.

Senator WALSH of Massachusetts. I would like to know whether a thousand hours is the number of hours that most men in the Flying Corps have had in the air or not?

Lieutenant PREIL. I should say that it is up around the top.

Senator WALSH of Massachusetts. Some of the young men here have given me a memorandum to ask you some questions, knowing your record and service. Did you write a syllabus for the Naval Academy?

Lieutenant PREIL. I wrote a pamphlet on the art of bombing.

Senator WALSH of Massachusetts. Is that used at the Naval Academy for midshipmen?

Lieutenant PREIL. It is used at our own station at Pensacola in training the academy men.

Senator WALSH of Massachusetts. And that is one of the books that students in aviation follow and study?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. I would like to ask you about the age of usefulness of aviators, in your opinion—you are now 25 years of age, you say?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And you have been flying how many years?

Lieutenant PREIL. Five years.

Senator WALSH of Massachusetts. Now, from your experience as an aviator and from your experience in training men and having flown with men of much more advanced age than yourself, what do you say about the age of experience of aviators?

Lieutenant PREIL. I know men that are 40 years old that are flying.

Senator WALSH of Massachusetts. And are they good fliers?

Lieutenant PREIL. Yes, sir; good fliers.

Senator WALSH of Massachusetts. And do you know of any reason why the average aviator can not continue flying until he is 40 years of age?

Lieutenant PREIL. I know of no reason whatsoever.

Senator WALSH of Massachusetts. My attention was called to the fact that there are different groups, or different types of heavier-than-air craft. Did you specialize in some particular types?

Lieutenant PREIL. I qualified in all types.

Senator WALSH of Massachusetts. What are all the types?

Lieutenant PREIL. I qualified in the seaplanes, torpedo planes, and land planes, and heavy bombing machines. I should say they would go under land planes possibly.

Senator WALSH of Massachusetts. Is that an exceptional experience, to have qualified in all of those?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. How many other men in the Navy that you know of have qualified in all of these different divisions of heavier-than-air craft?

Lieutenant PREIL. The outfit that I am attached to, the torpedo plane squadron of Langley Detachment, and a detachment on the west coast.

Senator WALSH of Massachusetts. They are limited in number?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. How limited?

Lieutenant PREIL. You take our outfit there were eight of us.

Senator WALSH of Massachusetts. How many of those men failed?

Lieutenant PREIL. Five.

Senator WALSH of Massachusetts. Five of the eight?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. How many of the other three were demoted, if any?

Lieutenant PREIL. One was demoted and the other two were old-time service men who had years of experience aboard ships—they knew it.

Senator WALSH of Massachusetts. So of the eight in your group, three were passed and two of them were old-time naval men?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And had been aboard ship for years?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And knew the general subjects that were submitted for examination?

Lieutenant PREIL. Yes, sir; when they spoke of something aboard ship they knew what it was.

Senator WALSH of Massachusetts. And the other one of the three that passed was demoted?

Lieutenant PREIL. No, sir; he kept his rank.

Senator WALSH of Massachusetts. What was his rank?

Lieutenant PREIL. Lieutenant.

Senator WALSH of Massachusetts. Then five of you failed?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And those five men are all going to leave the service, and have all had the general experience and knowledge of these various types of heavier-than-air craft that you have described?

Lieutenant PREIL. Exactly.

Senator WALSH of Massachusetts. Do you know about the record of the same groups in the other States?

Lieutenant PREIL. No, sir.

Senator WALSH of Massachusetts. Of these five men who failed, how long had they been in the service?

Lieutenant PREIL. Approximately five years.

Senator WALSH of Massachusetts. You can not bring them in here—are they in a general way young men who were at school and college like you were and entered the service at the outbreak of the war and have gained the experience that you have?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. How many of them are married, if you know?

Lieutenant PREIL. One, I believe.

Senator WALSH of Massachusetts. Besides yourself. Now, something has been said here—and more will probably be said—to the effect that after a young man has spent some years in aviation he will become useless, and the only thing the Government can do to keep him active so that he may earn his money is to send him to sea as an officer in navigation. Will you explain to the committee what are the present rules and regulations, if any, of the Navy Department in regard to the men in charge of stations, whether they fly or not, and what you have to say about the aircraft that is being developed which will require experienced men who themselves would not propel machinery but would be directors and guiders; will you please develop that thought for the committee, if you have any information about it?

Lieutenant PREIL. Aviation has advanced so rapidly that the men who have gathered these five years of experience are really invaluable—the experience is really invaluable to them. The men who are coming into aviation now have not had this previous experience. They have had no war-time flying; they know nothing but what aviation gives to-day. These men who have had years of experience will be very valuable for the coming types of machines. I personally believe that in years to come we will have large bombing machines commanded by officers who have had years of experience, not necessarily pilots, and men who will be commanding officers. The younger men will probably fly, but the men with experience will be in charge.

Senator WALSH of Massachusetts. On the *Roma*, did the man in charge of the ship direct or propel the machine?

Lieutenant PREIL. No, sir; he was the commanding officer.

Senator WALSH of Massachusetts. How old a man was he?

Lieutenant PREIL. I should say he was around 40.

Senator WALSH of Massachusetts. And he was commanding officer of that ship?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Now, the man who was on the levers, or propelling the machine, was a young pilot, I suppose?

Lieutenant PREIL. A younger man; yes, sir.

Senator WALSH of Massachusetts. Now, about the men in charge of stations— are these supposed to fly? Is it a benefit to have had the experience of flying and to have knowledge of the different types of aircraft and to be in charge of stations?

Lieutenant PREIL. Absolutely; we should have men at the head of this game that are flyers. Line officers do not know a thing about it.

Senator WALSH of Massachusetts. As a matter of fact, however, you have at the head of this game, as you say, men who know about flying?

Lieutenant PREIL. Yes, sir; at every station I have served under outside of one, the men at the head have been nonflyers.

Senator WALSH of Massachusetts. So every man at every station that you have served under, in charge of the flying squad, have been nonflyers except the one station?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. How many stations have you served on, approximately?

Lieutenant PREIL. Four stations.

Senator WALSH of Massachusetts. In your opinion, better results would follow if the older men had had past experience in aviation that are put in charge of these stations?

Lieutenant PREIL. Absolutely. They know the game and its needs.

Senator WALSH of Massachusetts. So that there will be opportunities in the future for men who have passed the flying age to act as division directors and squadron chiefs, in charge of various stations?

Lieutenant PREIL. That is my belief; yes, sir.

Senator WALSH of Massachusetts. Now, in what other ways can a young man who has been in aviation, and been a flyer, be of service after he has passed the so-called flying age?

Lieutenant PREIL. Along technical lines.

Senator WALSH of Massachusetts. Describe what you mean by that?

Lieutenant PREIL. The development of motors, the development of new aircraft and ordnance; we have some good aviators who are good ordnance men, etc.— along general lines of armament.

Senator WALSH of Massachusetts. Is it your opinion that there is to be a development of aviation in the next few years corresponding largely to the development in recent years in naval armament?

Lieutenant PREIL. Absolutely; yes sir; I believe there will be such a development.

Senator WALSH of Massachusetts. Will you state to the committee now some of the men who have failed in these examinations that you considered, or consider, experts perhaps unequalled in the matter of aviation?

Lieutenant PREIL. Well, there was Lieutenant Bush, who was commanding officer at Anacostia; he had command of the air station at Anacostia.

Senator WALSH of Massachusetts. Is it a mark of distinction, and is it a tribute to a man's ability, to be put as commanding officer of the station at Anacostia?

Lieutenant PREIL. Absolutely.

Senator WALSH of Massachusetts. Is that considered one of the show places of the Navy?

Lieutenant PREIL. Yes, sir; it is.

Senator WALSH of Massachusetts. And it is a station where anybody coming from foreign countries, or elsewhere, to see what we were doing in that line, would be taken?

Lieutenant PREIL. Yes, sir; because it is an experimental station.

Senator WALSH of Massachusetts. And the man who was commander of that station failed in his examination?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. What had been his career?

Lieutenant PREIL. I understand he was an old-time service man, and went back to chief warrant. He was demoted from lieutenant to chief warrant. Then there was Walter Hinton.

Senator WALSH of Massachusetts. Tell the committee about him.

Lieutenant PREIL. He was assistant pilot of the NC-4 that made the trans-Atlantic flight.

Senator WALSH of Massachusetts. Of all the men in the Navy he was selected to be assistant pilot of the NC-4 that made the trans-Atlantic flight?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Was that a mark of distinction to be selected for that position?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And was he considered by all the men in the Navy—that is, did his superiors consider him as remarkably competent and superior to most other men?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And he failed and is now out of the service—lost to the service?

Lieutenant PREIL. Yes, sir; after, I believe, 15 years of service.

The CHAIRMAN. Is he out now?

Senator WALSH of Massachusetts. Some of them have been dropped; they are dropping them all the time. They have been dropping these men who failed ever since the result of the examination.

Lieutenant PREIL. Yes, sir; they have been going out steadily.

Senator WALSH of Massachusetts. But few of the men remain.

Captain WILLIAMS. Taking all the reserves off duty.

Senator WALSH of Massachusetts. You might bring out the point I developed yesterday. You still retain the rank of lieutenant, senior grade?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And the men who passed the examination and were lieutenants, senior grade, have been reduced to ensign, and are now serving as ensigns under you?

Lieutenant PREIL. Yes, sir. Lieutenant Cahill was senior to me. He is now an ensign.

Senator WALSH of Massachusetts. So we have the anomaly now of you, having failed examination, drawing twice as much salary as the fellows who passed the examination who were ensigns.

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And who have been doing that for months?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And will continue to do it, of course, until you get out, unless they demote you. Now, go on with the names of the other men that you think are lost to the service, and who you think are of special value because of their knowledge of aeronautics.

Lieutenant PREIL. Well, I can mention numerous good pilots, exceptionally good pilots.

Senator WALSH of Massachusetts. We will have that list submitted later.

Lieutenant PREIL. Then there is Lieutenant Commander Haverland. He was with the Lafayette Escadrille abroad, who took examination for lieutenant and got absolutely nothing; in other words, failed.

Senator WALSH of Massachusetts. He failed?

Lieutenant PREIL. Failed; yes, sir.

Senator WALSH of Massachusetts. And he was in charge of the squadron in France during the war?

Lieutenant PREIL. He was with the Lafayette Escadrille, a man who won distinction abroad, an exceptionally good pilot.

Senator WALSH of Massachusetts. And he is lost to the service?

Lieutenant PREIL. Yes, sir; we have a lot of others. We have Lieutenant Miller, Lieutenant Gillespie, and others.

Senator WALSH of Massachusetts. Are there any men left in the Naval Flying Corps that you know of that have to give to their country the benefit of their experience flying abroad?

Lieutenant PREIL. Very, very few.

Senator WALSH of Massachusetts. What, in your opinion, is going to be the effect upon aviation of what has happened in dropping so many of your men who failed and in reducing the rank of other men, and in the resignations that would come by reason of reduction in rank in the Flying Corps?

Lieutenant PREIL. It has caused great dissension amongst officers in the flying game, and I personally believe that the Navy—the Aviation Corps—has lost some mighty valuable men. Undoubtedly they have lost valuable men, and they will continue to do so until they are all out.

Senator WALSH of Massachusetts. Do you know whether the demotions of these men, and the loss of other men, their companions, fellows like you, from the service have disheartened even those remaining temporarily?

Lieutenant PREIL. Absolutely; yes, sir.

Senator WALSH of Massachusetts. What class of men built up the Naval Aviation Corps that we have? Was it reserve officers or was it men from the regular line?

Lieutenant PREIL. Naval aviation started out before our time, a small group of regular naval officers, among them Commander Whiting, Lieutenant Commander Chevalier, and numerous others, and then as the war came on they took in reserves, and at one time we had 2,200, approximately, reserve flyers. As the old men—the regulars, who knew more about the game than we did—were made executives, they were put in command and sent abroad, etc.

Senator WALSH of Massachusetts. That bears out the very thing we have been talking about, the older men were made executives, who did not have to do flying, and you men were given the active work.

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. And there was plenty of work for them to do as executives?

Lieutenant PREIL. Yes, sir; plenty. And then the work fell on us.

Senator WALSH of Massachusetts. So that during the war the great bulk of the work was carried on by the reserves?

Lieutenant PREIL. Yes, sir; I would say so.

Senator WALSH of Massachusetts. And since the war have your reserves been training your men to fly?

Lieutenant PREIL. Absolutely.

Senator WALSH of Massachusetts. What class of men have you been training?

Lieutenant PREIL. Lieutenant commanders and lieutenants; the majority of them lieutenants.

Senator WALSH of Massachusetts. You were training men of the rank of lieutenants?

Lieutenant PREIL. And lieutenant commanders.

Senator WALSH of Massachusetts. To fly?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Are those regular naval officers?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. So that since the war you have been delegated, you and others, to train regular men to continue in this business and carry on the Naval Flying Corps?

Lieutenant PREIL. Yes, sir.

Senator WALSH of Massachusetts. Have the men you have been training, many of them, been Annapolis graduates?

Lieutenant PREIL. All of them.

Senator WALSH of Massachusetts. So that you have been used, since the war, to train and work into the service Annapolis graduates who are now of higher rank than those that are remaining and are taking your place?

Lieutenant PREIL. Absolutely.

Senator WALSH. Would you have remained in the service after the armistice—I think I have perhaps asked you this before—if you had known of this situation?

Lieutenant PREIL. No, sir.

Senator WALSH. Would any of these men?

Lieutenant PREIL. I doubt it seriously.

Senator WALSH. And did you suppose that you were being kept on for two years or more simply to train men from Annapolis to take your place?

Lieutenant PREIL. We did not believe that; no, sir; but that is what has happened.

Senator WALSH. Have these men that you yourself have trained, and have had no examinations to take in aviation, actually been put in higher rank now, and are in higher rank than those boys that passed and have been demoted?

Lieutenant PREIL. Yes, sir.

Senator WALSH. There are innumerable cases of that?

Lieutenant PREIL. Yes, sir. I would like to make a statement—

Senator WALSH. Before you make your statement, let me clinch this: Men who have been trained in aviation since the war by you men are now superior in rank, and who never took an examination, but happened to be in the regular Navy, to those men who went through the war, and who have been demoted as a result of this examination?

Lieutenant PREIL. That is true.

Senator WALSH. You may now make your statement.

Lieutenant PREIL. I would like to state here—of course, I do not wish you to feel, Captain [referring to Captain Williams] that I am discriminating against the academy men, because I am not. I admire them and look up to them; but, on the other hand, these very men whom we have trained, with 100 or 150 flying hours in the air, are commanding us. They know little or nothing about flying. They are good line officers, probably the best we have—undoubtedly the best—but they have no experience in aviation, and they try to tell us things that cause hard feelings between the Regulars and the Reserves. They are senior to us and naturally they receive the places. We have to carry out their orders; but as far as flying ability is concerned, and experience, they have it not and they never will have it.

Senator WALSH. How long would it take, Lieutenant, for a man to qualify to have charge of the various types of planes you have described?

Lieutenant PREIL. As I said before—

Senator WALSH. And give us some idea of the cost to the Government of training men to have the knowledge that you now have, but which is being lost to the Government.

Lieutenant PREIL. As I said before, it takes from six to nine months to train an aviator.

Senator WALSH. Just to fly?

Lieutenant PREIL. Yes, sir; to know the flying game and the ground game—theoretical and practical, and I believe the Government figures it would cost \$40,000 to \$45,000 to train one naval aviator. Now, they are training new ones at that cost, and getting rid of those that they have trained. For instance, in my own case, I have had several special courses which have been a great cost to the Government.

Senator WALSH. And it is now lost to the service of the Government?

Lieutenant PREIL. A total loss, absolutely.

Senator WALSH. And those were expensive, you say, to the Government?

Lieutenant PREIL. Yes, sir; I had special courses in landplanes, torpedo and bombing, as I mentioned before. That is a total loss. I imagine it would mount up into millions in the total loss of men that had been trained.

Senator WALSH. You think the total loss, figured in dollars and cents, to the Government mounts up into the millions?

Lieutenant PREIL. Yes, sir; I do. First, to become a naval aviator it takes some six or nine months. Then, if he takes special courses in torpedo planes there is probably six months more. Then, if he goes into a special course in "N C" boats, that is three months, approximately, considering weather and everything. That is a little over, or about, two years, approximately—that is, just to become an aviator—and to take two special courses, and then there are numerous others. You can take special courses in bombing gunnery, engineering, etc.

Senator WALSH. How long does that take?

Lieutenant PREIL. My course in bombing took me four months not only to learn the theoretical end of it but actually to get out and drop bombs and find out the results, etc. It took me four months, but it takes over two years for a man to become qualified in other various branches.

Senator WALSH. I suppose it is self-apparent, Lieutenant, but for the sake of the record I would like to have it shown—but has this life that you have been living and this work you have been doing for the Government been hazardous?

Lieutenant PREIL. Absolutely.

Senator WALSH. And have many of your companions met with serious accident and died during those five years?

Lieutenant PREIL. Yes, sir; a lot of my friends have.

Senator WALSH. Do you find among the reserve officers great devotion to the development in the Navy of aeronautics?

Lieutenant PREIL. Absolutely; their whole heart and soul are for aviation.

Senator WALSH. And has the result of these examinations and the breaking up of the reserve corps had a depressing effect upon the men?

Lieutenant PREIL. Absolutely; even those that remain in.

Senator WALSH. What are temporary officers?

Lieutenant PREIL. Temporary officers are officers—

Senator WALSH. All of them, both reserve and temporary, take the examinations. I understand what reserves are. What are temporary?

Lieutenant PREIL. Temporary officers are officers who have had experience in the Navy as enlisted and warrant officers and who have been promoted to higher rank—commissioned ranks.

Senator WALSH. Now, is it a fact that temporary officers, being men in the regular line, but take these examinations and pass them, and are given ensigns, have been placed in higher rank and higher grade than the former reserve officers who passed the examination?

Lieutenant PREIL. Would you mind repeating that question?

Senator WALSH. Have these temporary officers who have passed the examinations and been made ensigns or lieutenants been given a higher grade—if I am using the correct term—than reserve officers who have been made ensigns?

Lieutenant PREIL. They come under the same status. They could take examinations for lieutenants if they were lieutenants, and if they passed that examination they would be made lieutenants.

Senator WALSH. I have some memoranda here to the effect that the temporary officers who passed were placed ahead of the aviators, no matter what their final marks were.

Lieutenant PREIL. Yes, sir.

Senator WALSH. Will you explain that to me?

Lieutenant PREIL. Yes, sir. It is like this: There are regular officers, temporary officers, and reserves in the Navy and all have running mates.

Senator WALSH. Now, what distinction was made?

Lieutenant PREIL. The temporary was made senior.

Senator WALSH. Made senior to the reserve?

Lieutenant PREIL. Yes, sir.

Senator WALSH. So that at every turn the reserve has been made subordinate to the regular naval officer and to the temporary officer?

Lieutenant PREIL. Absolutely; yes, sir.

Senator WALSH. I do not know, Lieutenant, that I have any further questions to ask, unless there is something that you want to say that I have omitted.

Lieutenant PREIL. I would like to make one more statement.

Captain WILLIAMS. May I ask him a question?

The CHAIRMAN. Certainly.

Senator WALSH. He stated that he desired to make one more statement, and then you may question him.

Lieutenant PREIL. We had to compete with the old-time service men, who were, in my estimation, nearly qualified to take this examination with little study; they had been aboard ship for years; they knew the line game. We knew nothing but aviation, and I tell you it is mighty hard if you examine an engineer in medicine, or vice versa, and expect him to pass. It can not be done.

Captain WILLIAMS. Are you familiar with section 3 of the act of June 4, 1920, under which these examinations were held?

Lieutenant PREIL. I received a copy of it.

Captain WILLIAMS. Are you familiar with the provisions of that section which directed the placing of the temporary and reserve officers in the lineal line of the Navy?

Lieutenant PREIL. I saw that; yes, sir.

Captain WILLIAMS. Are you familiar with any case in which that law has been violated with regard to reserve aviators or temporary aviators?

Lieutenant PREIL. Yes, sir; there is a circular letter, to the best of my knowledge, that came out that has this information. I believe I have that at home. I would like to show that to you, and furthermore, if I am not mistaken, I saw that very same thing in the Army and Navy Journal, where they were arranged in that way.

Senator WALSH. What way do you mean?

Lieutenant PREIL. Temporaries above the reserves; and we also asked some of the regulars at our station—the commanding officers—we asked the commanding officer of the station about this, and that is the way they explained it to us. That is my impression.

Mr. SCHUYLER. You have just made a statement; I do not know whether you understood the question, that the law apparently had been violated in arranging reserves and temporaries.

Lieutenant PREIL. The law? We were given to understand by the commanding officers of two stations that that is the way they work it out—that the temporary officer, due to the fact that he had a lot more experience in the Navy—that is, generally speaking—would be put as senior to us.

Mr. SCHUYLER. You do not know why that statement was made by the commanding officer?

Lieutenant PREIL. No.

Mr. SCHUYLER. I just wanted to make the statement that the law provides that temporaries precede the reserves in a given rank.

Lieutenant PREIL. May I say this—

Senator WALSH. Is that after the examination or before?

Mr. SCHUYLER. After the examination.

Senator WALSH. In other words, this law provides, you claim, that if the temporary officer and reserve officer passed and both were given equal rank and made officers, the temporary officer under the law would precede in rank the former reserve officer?

Mr. SCHUYLER. Yes, sir.

Senator KEYES. Now, for the record, get that section in.

Lieutenant PREIL. I believe I have read this section.

Mr. SCHUYLER. It is as follows:

"Sec. 3. That officers holding temporary commissioned and warrant ranks in the Navy and members of the Naval Reserve Force of commissioned and warrant ranks shall be eligible for transfer to an appointment in the permanent grades or ranks in the Navy for which they may be found qualified not above that held by them on the date of transfer, but not to exceed a total of 1,200 commissioned officers in the line, of which number 500 may be appointed from class 5. Naval Reserve Flying Corps. with proportionate number in all staff corps as now authorized by law, except that the Medical, Dental, and Supply Corps shall be entitled to such additional numbers as are necessary to make the full quota of officers in those corps, as now authorized by law: *Provided*, That officers so appointed to the line of the Navy shall take rank in accordance with their precedence while holding temporary rank, and members of the Naval Reserve Force of commissioned and warrant ranks found qualified for a given rank shall be arranged according to their precedence among themselves and commissioned in the permanent service next after the lowest temporary officer who qualifies for the same rank and is appointed in accordance with the provisions of this act."

Lieutenant PREIL. Exactly. The lowest temporary officer qualifies as lieutenant; he is senior to the highest reserve officer that qualified. Exactly.

Mr. SCHUYLER. It provides in a given rank.

Lieutenant PREIL. It discriminates against the reserve.

Mr. SCHUYLER. We are trying to bring out that the Navy Department did not make the discrimination.

Senator KEYES. The law did it, not the Navy Department.

Senator WALSH. Is there anything further that you desire to say?

Lieutenant PREIL. No, sir.

(Lieutenant Preil was thereupon excused.)

TESTIMONY OF LIEUT. S. M. BRADFORD—Resumed.

Senator WALSH. Lieutenant Bradford, when we adjourned yesterday we were discussing this very subject that we are now discussing with Lieutenant Preil, as to the distinction between temporary officers and reserve officers after the examination. What have you to say about that?

Lieutenant BRADFORD. The distinction made between officers of the line of the Regular Navy and reserve officers, as I think I have stated, is that the reserve officers have been assigned running mates, or they had some one picked in the Regular Navy whom they were to follow after in rank, next after him. Well, regular officers would come to a station and be given places of superior rank to those reserves who, according to the department's circular letter, should have ranked them. In other words, you were practically demoted in your duties because of the appearance of a regular officer.

Senator KEYES. Have you a copy of that circular letter to put in this record?

Lieutenant BRADFORD. Yes, sir.

The CHAIRMAN. It will be incorporated in the record.

(The paper referred to is here printed in full, as follows:)

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., May 3, 1920.

Bureau of Navigation circular letter No. 40-20.

To: All ships and stations.

Subject: Promotion of class 5 officers.

1. Running mates for promotion in provisional and confirmed ranks have been assigned to class 5 officers as follows:

All officers of class 5 who were lieutenant commanders on April 15, 1920, have been assigned as a running mate Lieut. Elmer B. Hough. All lieutenants on April 15, 1920, have been assigned Lieut. James P. Compton. All lieutenants (junior grade) on April 15, 1920, have been assigned Lieut. Kenneth M. Hoeffel, and all ensigns on April 15, 1920, have been assigned Lieut. (junior grade) William Butler, jr.

2. All class 5 officers who have performed the required amount of service and are passed by the confirmation board will be confirmed in the provisional rank they held October 1, 1919, which was the date their cases were submitted to the confirmation board.

3. All provisional and confirmed commissions in effect on April 15, 1920, will remain in full effect.

4. Future promotions in provisional and confirmed ranks will be governed by the temporary and permanent promotions of the running mates. In accordance with paragraph (b) section 4, chapter 2, of the regulations governing the organization and administration of the Naval Reserve Force (1920), lieutenants (junior grade) and ensigns will not be considered eligible for promotion with their running mates until they have completed three years in their respective grades.

THOMAS WASHINGTON.

Senator WALSH. Who were class 5 officers?

Lieutenant BRADFORD. The Navy Reserve Flying Corps.

Senator WALSH. Who were those men referred to; are they regular Navy officers?

Lieutenant BRADFORD. Of the line.

Senator WALSH. Are they of the Flying Corps?

Lieutenant BRADFORD. I think not—not in the Flying Corps.

Senator WALSH. Were you assigned to those men?

Lieutenant BRADFORD. In other words, to give you a standing, something that the Navy Department could go by, and you would be in a rank that could be followed.

Senator WALSH. Give us a concrete illustration.

Lieutenant BRADFORD. My running mate was Lieutenant Compton.

Senator WALSH. Tell us how that worked out.

Lieutenant BRADFORD. I ranked with but after him. He was the last man in the class of 1916.

Senator WALSH. He was an Annapolis man?

Lieutenant BRADFORD. He was an Annapolis man.

Senator WALSH. And the last man who passed in 1916?

Lieutenant BRADFORD. I think that is correct; I am almost sure.

Senator WALSH. And although you had a commission as lieutenant, senior grade, long before he got that commission, he was by that order made your superior. Is that it?

Lieutenant BRADFORD. I am not trying to bring out such a point. What I want to say is that although I ranked with and after this man who was in the class of 1916, a regular officer, an academy graduate, came to the station who was in the class of 1917 or 1918, and held the rank of senior grade lieutenant. He was my superior.

Senator WALSH. Under this order.

Lieutenant BRADFORD. Under the conditions outlined by the commanding officer, not under this order.

Senator WALSH. So that men who came into the service later than you—

Lieutenant BRADFORD. In other words, there was a certain amount of discrimination against you because you were a reserve.

Senator WALSH. And this order sought to take advantage of men from the regular service who entered and got commissioned later than you did; is that true?

Lieutenant BRADFORD. I can not say that; I do not know.

Senator WALSH. Of course, these men did not get their ships until—

Lieutenant BRADFORD. A number of these men from the academy were promoted very rapidly.

Senator WALSH. On account of the war?

Lieutenant BRADFORD. Yes, sir.

Senator WALSH. Now let us proceed to the other line of inquiry.

Lieutenant BRADFORD. Here is one of the points brought out by the Navy Department. They say:

"It should be borne in mind that aviators were not the only class of officers of a purely technical profession taking the examination and who were subjected to the general requirements to show qualification in all branches of the line. There were others, among whom may be mentioned the following: Chief boatswain and boatswain; chief gunners and gunners, ordnance; chief gunners and gunners, electric; chief gunners and gunners, radio; chief machinists and machinists and engineer officers of the Naval Reserve."

Senator KEYES. What are you reading from?

Lieutenant BRADFORD. From a copy of the letter sent out by the Navy Department to the chairman of the Committee on Naval Affairs, United States Senate.

Senator KEYES. What date?

Lieutenant BRADFORD. The 25th of January, 1922.

Senator WALSH. After my resolution had been introduced; in other words, it is a letter that sets forth their answer. Explain why you called this to our attention.

Lieutenant BRADFORD. Let me bring out the point that the aviators, who were more or less specialists in that particular line, were forced to take various line subjects, and they draw this comparison with these people who had a special line of duty, and this special line of duty was in most all cases duty on board some naval vessel where they were constantly in touch with routine work of the ships and all parts of the ship—they were trained—and no doubt stood duty as officers of the deck. They were required to have a certain knowledge of the working of the ship.

Now we have, even in aviation, specialists, too. We have aviation chief machinists' mates and radio men and riggers, but they know all about aviation; just the mere fact that they happened to be in that particular branch of aviation does not narrow them as specialists in that branch; they know aviation as a whole, and those men know all the duties in the Navy as a whole; they were thoroughly familiar with them and had every opportunity to be.

Senator WALSH. Therefore the comparison is not a fair one?

Lieutenant BRADFORD. No, sir; there is no comparison.

Senator WALSH. Now, proceed and answer the other suggestions made in the letter of the Navy Department.

Lieutenant BRADFORD. Yes, sir.

"In July, 1919, nearly one year before the passage of the act authorizing the transfer to the line of the Navy of temporary and reserve officers, and 22 months before the examination for transfer was held, the Director of Naval Aviation issued a circular letter to the commanding officers of all naval air stations and naval aviation detachments inviting attention to the opportunities which existed at that time for the instruction of aviation officers in regular line duties in order that the latter might be the better prepared for examination for transfer when necessary legislation should be enacted. In accordance with this circular letter courses of instruction for aviation officers were established and officers were given every opportunity and assistance to qualify for the general duties of the line."

Now, that was in July, 1919. Personally, I have no recollection of ever having heard of any such thing.

Senator WALSH. Have any of the men that you have talked with?

Lieutenant BRADFORD. At no such time, July, 1919; I know of no classes that were started—classes of instruction—in connection with line duties. In other words, it is something entirely new to me.

Senator WALSH. And if the order was issued, so far as you know it has never been lived up to?

Lieutenant BRADFORD. So far as I know, it has never been lived up to.

Senator WALSH. And you never heard of the order until this letter came?

Lieutenant BRADFORD. I can not say that, because I possibly might have heard of it, but it was put in such mild form.

Captain WILLIAMS. May I ask a question?

The CHAIRMAN. Certainly.

Captain WILLIAMS. Was this order not published in the service papers?

Lieutenant BRADFORD. In what service papers?

Captain WILLIAMS. The Army and Navy Register, or the Army and Navy Journal?

Lieutenant BRADFORD. I do not know; I could not say.

Senator WALSH. Was that an official paper?

Captain WILLIAMS. That is a service paper which we all read and which paper, among other things, contains orders.

Senator WALSH. Is every man obliged to subscribe to that paper?

Captain WILLIAMS. No, sir.

Lieutenant BRADFORD. I personally very rarely read it.

Senator WALSH. As a matter of fact, do you know of any men reading it in large numbers?

Lieutenant BRADFORD. It would seem to me to be hardly the way to carry out the orders of the Navy Department, to publish them in some paper that is an outside publication.

Senator KEYES. May I ask you, Captain, if you rely upon the publications in those papers?

Captain WILLIAMS. No, sir; only in so far as this order was issued officially, and it is customary for those of us who take an interest in our profession to read it from week to week. There are matters of interest in those papers, which are devoted especially to Army and Navy questions.

Senator WALSH. I suppose you subscribe for aviation papers?

Captain WILLIAMS. No, sir.

Senator WALSH. That is part of your profession, evidently, if navigation is part of their profession.

Captain WILLIAMS. I think there were circulars they sent out at the same time, and I would like to ask Mr. Bradford if he received them, giving the subject of examination. I think those were sent to individuals.

Lieutenant BRADFORD. I think that was sometime afterwards, was it not? Not in 1919?

Captain WILLIAMS. I asked you if you received it—the individual circular?

Senator WALSH. He is talking about the 1919 circular, not 1920.

Captain WILLIAMS. I am asking him about the other.

Senator WALSH. He is discussing only 1920. We are coming to that. Now, let us clear that up. Do you know what steps were taken by the Navy Department to promulgate that circular generally to the men?

Captain WILLIAMS. At the present moment I am not able to give the details, but I will, instead of wasting the time now, endeavor to supply the details. I think the executive officers—that is my recollection, that Mr. Bradford testified that he was in a position of responsibility—

Senator WALSH (interposing). In 1919.

Captain WILLIAMS (continuing). Of importance, at Hampton Road flying station, of such responsibility and importance that he could not find time to devote to the preparation of this examination.

Senator WALSH. Yes; he testified to that—to the examination on general navigation subjects and text books.

Captain WILLIAMS. I want to get my recollection of his statement correct, that his position was of such importance that he could not leave his office in charge of his yeoman and therefore was prevented from preparing for this examination.

Senator WALSH. I suppose that does not mean that he could not take a book in his hand and read it. As a matter of fact, he did do that, but he had his other duties and responsibilities. You were not relieved of any responsibility, were you?

Lieutenant BRADFORD. No, sir.

Senator WALSH. Is there any dispute about that, that any of these boys were relieved of responsibility?

Captain WILLIAMS. None.

Senator WALSH. That none of them were relieved of any duties at any time in order to prepare for this examination?

Senator KEYES. Except a week.

Senator WALSH. There is no question about that.

Captain WILLIAMS. There is no question about his not being relieved.

Senator WALSH. And to do whatever the work at their respective stations required?

Captain WILLIAMS. Yes, sir.

Lieutenant BRADFORD. My object in bringing that out was to state that I could not attend class regularly. You know when the commanding officer calls up and wants some information, it is up to you to furnish it, if you expect to get a good fitness report. If you are not there in person, nobody can run your job for you like you can do it yourself, and in order to carry out my part or what was expected of me by the Navy and by my commanding officer, I stayed there myself and ran it, and did it to the best of my ability.

Captain WILLIAMS. Of what year are you speaking now when you stayed there and ran it; 1919 or 1920?

Lieutenant BRADFORD. In 1919 there were no classes and nothing to attend, so I had nothing to occupy my attention with other than regular duties.

Captain WILLIAMS. When did you first hear of a class going on that you could not attend?

Lieutenant BRADFORD. When they were started down at the naval operating base at Hampton Roads, I think in the latter part of September, 1920, or the first of October, I am not sure. I know of no other classes. I know of no class that was started in connection with this subject about July, 1919. It would be over a year after that that any class started that I know anything about.

Senator WALSH. Was there any order of 1920—I do not think there is much dispute about the fact that the 1919 order never was made effective.

Captain WILLIAMS. I am trying to get him straight as to dates; that is all.

Lieutenant BRADFORD (reading):

"In August, 1920, shortly after the passage of the act of June 4, 1920, the Bureau of Navigation issued a circular letter outlining the scope of the examination to be held, and on December 11, 1920, the Secretary of the Navy issued a department circular letter setting the date of the examination as May 16, 1921. The circular letter above referred to gave sample questions in the various subjects. A large part of the examination in several subjects was made up of the sample questions given in the circular letter."

Senator WALSH. Of course this was while Secretary Daniels was in charge of the Navy.

Lieutenant BRADFORD. Yes, sir; in 1920. This circular letter, I am pretty sure, contained the scope of the examination. It was given in this letter, I think, but I do not think the questions set forth in this circular letter were ever closely adhered to in the examinations; in fact, in a large majority of them there was no similarity.

Captain WILLIAMS. You read these sample questions for examination that they had sent you in September, 1920.

Senator WALSH. December, 1920.

Lieutenant BRADFORD. I think it is September.

Captain WILLIAMS. September, 1920?

Lieutenant BRADFORD. Yes, sir.

Captain WILLIAMS. And you say that none of these questions were used on the examination?

Lieutenant BRADFORD. No, sir; I did not say that. I said that the majority of them were not similar to those given in the examination.

Captain WILLIAMS. How many questions on that sample examination were actually used in the examination which you took?

Lieutenant BRADFORD. I do not know, sir.

Senator KEYES. Were there any that you recall?

Lieutenant BRADFORD. Oh, yes, sir; there were some.

Senator WALSH. What do you mean by "sample questions"?

Lieutenant BRADFORD. They gave you an outline of what you might expect to have in the examination.

Senator WALSH. For instance, in navigation they would give you a symposium in navigation that you might be supposed to answer questions on?

Lieutenant BRADFORD. Yes, sir. [Reading:]

"The examinations were necessarily competitive, as over 2,200 officers applied for permission to take the examinations. The examinations were held simultaneously on board ships and at naval stations all over the world, and exactly the same questions were asked of each candidate with the one exception noted above, that officers who so elected were permitted to substitute the subject of aeronautics for one of the general line subjects."

Senator WALSH. Before you discuss that, may I ask this question, which I do not suppose there is much dispute about—that the examinations were prepared in all these subjects by men who had never had any experience in aviation, except the one subject of aviation?

Captain WILLIAMS. No, sir. Here is one of them.

Senator WALSH. I am not speaking about the subject in aviation; I am not speaking about that subject. Outside of that subject the examinations were prepared by men who had had no experience in aviation.

Captain WILLIAMS. Maybe.

Senator WALSH. Well, is there any dispute about that? If there is, I would like to know it.

Captain WILLIAMS. I would have to look that up.

Senator WALSH. As far as you know, examinations covering 900 subjects were prepared and submitted to these men by men who themselves had had no experience in aviation?

Captain WILLIAMS. I have the very strongest presumption that you are, in general terms, correct.

Senator WALSH. There is not very much difference between us. We are all very friendly about this matter.

Captain WILLIAMS. I want to find out how an aviator flies who does not know anything about navigation; how he flies at sea when he can not navigate.

Lieutenant BRADFORD. I can give you a very good answer to that, I think, or at least an answer that will bear on it. Not so very long ago there was a lieutenant commander, a regular line officer of the Navy, and a lieutenant, regular line officer of the Navy, both having done their required time at sea. They were in command of a plane which started for Annapolis—

Senator KEYES. From where?

Lieutenant BRADFORD. From Hampton Roads. They wound up at some place over on the eastern shore.

Senator WALSH. What does that indicate—that they knew nothing about air direction?

Lieutenant BRADFORD. Well, they were navigating the C-7 airship which came to Washington, and the man who was the directional pilot who brought it here was a reserve officer. They navigated to hit Washington exactly where the plane did which was supposed to accompany the C-7—not to accompany it, but to go at the same time; it was not necessary that they should be together—but this plane was in command of a lieutenant, a line officer in the Regular Navy, experienced in navigating. He made Baltimore. He missed the mouth of the Potomac River entirely. I think he got to Washington at 4 o'clock in the afternoon. He left Hampton Roads early in the morning.

Captain WILLIAMS. Then I understand that navigating is a part of aviation.

Lieutenant BRADFORD. Yes; aerial navigation is.

Captain WILLIAMS. Then what is the question about the examination?

Lieutenant BRADFORD. The examination was on the navigation of surface craft.

Senator WALSH. You say there is a great difference between the navigation of surface craft and air craft?

Lieutenant BRADFORD. That shows it. Those men were experienced as navigators. There was all the difference in the world. There are different instruments that you have to show drift by and all kinds of things to contend with that you do not have with surface craft.

Senator WALSH. Air pockets, etc.—storms?

Lieutenant BRADFORD. Well, it is really entirely different.

Captain WILLIAMS. I want you to get this from my point of view—

Senator WALSH. I think that this young man could pass an examination in aeronautics that you would fail in.

Captain WILLIAMS. Let us consider this, for instance: He has stated that they have a chief boatswain's mate, but he speaks in general terms—something which I can not get the grasp of—that this chief boatswain's mate was familiar with life on board ship, and had lived on board ship, and therefore it was more just for him to take an examination in navigation. Navigation is a matter which he never had anything to do with. If you draw the distinction between airplane navigation and surface navigation, it is more just to submit that aviation officer to an examination in navigation than this chief boatswain, whose duties, I assure you, have nothing to do with navigation.

Lieutenant BRADFORD. The chief boatswain.

Captain WILLIAMS. What has he to do with navigation? In the first place, let us hear what your opinion is of the chief boatswain's duties; you have been five years in the Navy.

Lieutenant BRADFORD. I have been five years in aviation, but I have never been on board ship. I have no more knowledge of what his duties are on board ship than Senator Walsh has, and I never had the opportunity to acquire that knowledge.

Senator KEYES. You would not, maintain, Captain, would you, that there was not a difference between surface navigation and air navigation?

Captain WILLIAMS. There is a difference, of course. There is a difference in all forms of navigation; but here is a boatswain who took this examination, and if I understand Mr. Bradford correctly he does not make any demurrer

about giving the boatswain the examination, who never had any experience in surface navigation or airplane navigation, or anything else, and navigation is as far outside of his duties as it can be.

Lieutenant BRADFORD. We have gunnery officers, etc., radio men in aviation, and you certainly would not hesitate to give them an examination in aerial navigation. They have to be enough experienced in that to submit to examination, and why should not the man who has had sea duty for a number of years, such as the ordinary boatswain who has reached the position of warrant officer, and is assisting the officers, no doubt, in navigating?

Senator WALSH. Had not the boatswain been promoted before he took the position to a navigating officer? He could not have taken this examination if he was not an officer, and during the war period he had become an officer, knowing all about lieutenants' duties and ensigns' duties. Do you mean to say he had no knowledge except that of boatswain?

Lieutenant BRADFORD. He was on board ship; the navigating officer was there every day attending to his duties. He could take all the time he wanted to get a practical description of navigation right there at any day and at any time.

Senator WALSH. He was on the ship when he prepared for examination, I suppose, during those months. You may proceed.

Lieutenant BRADFORD. There is another thing: When aeronautics was substituted. You were permitted to substitute aeronautics for one other subject. Quite a great deal of stress was laid on the fact that there were some aviators who did not take the subject of aeronautics, even their own duties, their own specialty. They passed them up and took all the others. You will find that the majority of those men who did that were men who had prepared themselves in all these other subjects. It was not until a few months before the examination that you were advised that you would be allowed to substitute aeronautics. They had prepared in those other subjects, and because of the doubt in their mind as to whether or not this examination in aeronautics would be of a highly technical nature they thought it better to take these other subjects that they had thoroughly prepared themselves in over quite a period of time. Now, I know that, because I talked with a number—I would not say a number, but I talked with men who did not take aeronautics.

Senator WALSH. What have you to say about the fact that a good many men who had been in the Flying Corps failed on the subject of aeronautics?

Lieutenant BRADFORD. It was due to insufficient time to cover the examination, as I think I said yesterday. There was one subject there, the assembly and erection of C class airship from the time it arrived at the station in a crate up to the time it was ready to take the air. You could easily take, and you should take, the entire time that was given to that examination to properly go into the details and describe the necessary operation and preparation; and when I say that, I have had more experience in the erection and assembling and flying of that class of aircraft than any Regular line officer in the Navy.

Senator WALSH. And yet answering that one question efficiently and properly would take the whole length of the examination?

Lieutenant BRADFORD. Absolutely.

Senator KEYES. What was the whole length of time of the examination that was put in?

Lieutenant BRADFORD. There were two 3-hour periods. I think that is correct.

Senator WALSH. For each subject?

Lieutenant BRADFORD. No, sir; for certain subjects.

Senator WALSH. How much for aeronautics?

Lieutenant BRADFORD. Two 3-hour periods; six hours.

Captain WILLIAMS. Can you give us a list of the subjects that you personally were examined in?

Lieutenant BRADFORD. I substituted aeronautics for navigation.

Captain WILLIAMS. There were 10 subjects, were there not?

Lieutenant BRADFORD. I have them right here. The subjects were naval regulations, navigation, seamanship, ordnance, gunnery, engineering, electricity, military law, international law, and aeronautics, optional.

Captain WILLIAMS. Now, the result of your examination was what? That you were reduced in rank, or that you were found unsatisfactory?

Lieutenant BRADFORD. Unsatisfactory.

Captain WILLIAMS. You were found unsatisfactory?

Lieutenant BRADFORD. Yes, sir.

Captain WILLIAMS. In what subjects were you considered unsatisfactory?

Lieutenant BRADFORD. That was never given out.

Captain WILLIAMS. Have you ever made any attempt to find out?

Lieutenant BRADFORD. No, sir.

Captain WILLIAMS. Is it possible that you were found unsatisfactory in aeronautics?

Lieutenant BRADFORD. It is possible; yes, sir. I even think in one instance—that very question which I stated—I think I had left out some things in that which would have made the airship itself absolutely impossible to fly, and as I have had much more experience than most anybody in the Navy on that particular thing, it was just a case with me of writing as fast as I could in an effort to cover as much as I could, to get the best result.

Captain WILLIAMS. You said that you were examined on the Navy regulations?

Lieutenant BRADFORD. Yes, sir.

Captain WILLIAMS. Is it possible for an aviator to perform his duties in Hampton Roads, where you were, without any knowledge of the Navy regulations, which permit him to coordinate with other officers and other enlisted men?

Lieutenant BRADFORD. You have to have a certain knowledge of the Navy regulations.

Captain WILLIAMS. Is it not your duty to know the Navy regulations?

Lieutenant BRADFORD. It is.

Captain WILLIAMS. Did you pass the Navy regulations?

Lieutenant BRADFORD. I do not know, sir.

Lieutenant STICKLEY. May I interrupt? These are questions that can better be answered by the Navy Department, and the best evidence in this case would appear to me to be the marks themselves, and to let the Navy Department furnish them. He has no idea what he made. They have never been given out, and I submit that the department should provide these answers for this committee if they want them.

Senator KEYES. I think they will provide them.

Captain WILLIAMS. I am bringing them out, now, by Mr. Bradford.

The CHAIRMAN. It is our idea to have them all in the record before we get through.

Captain WILLIAMS. We can submit them now, but I did not want to do it at this time. Here is the record of Mr. Smith M. Bradford, I believe:

"Ensign, United States Naval Reserve Force, January 24, 1918; lieutenant (junior grade), United States Naval Reserve Force, October 1, 1918; lieutenant, United States Naval Reserve Force, April 1, 1919. Failed professionally on examination for transfer to permanent Navy. Not qualified for transfer due to failure in following subjects: Navy regulations, seamanship, ordnance and gunnery, engineering, electricity. Passed satisfactorily in aeronautics, but marks rather poor. Present status is lieutenant, class 5, United States Naval Reserve Force."

Senator KEYES. Is there anything that you desire to say, Mr. Bradford, regarding that?

Lieutenant BRADFORD. There is not much to say about that.

Mr. SCHUYLER. Let me ask you a question. The statement has been made that these temporaries all had an opportunity to pass the examination because they performed duty aboard ship that would help them.

Lieutenant BRADFORD. Yes, sir.

Mr. SCHUYLER. Is it necessary for an officer to go aboard to know the Navy regulations?

Lieutenant BRADFORD. The Navy regulations is only one of a number of subjects.

Mr. SCHUYLER. That is one subject, but it is a subject that counts in the examination.

Lieutenant BRADFORD. Sure. Can I ask you how many passed on the original markings?

Mr. SCHUYLER. In what; in all subjects?

Lieutenant BRADFORD. That made them qualified for transfer to the regular line of the Navy.

Captain WILLIAMS. I will submit that later.

Senator KEYES. If Mr. Bradford would like it, there is no objection to your stating it, if you have it.

Lieutenant BRADFORD. I do not mean the corrected markings; I mean the original marks.

Captain WILLIAMS. Perhaps the present time would be just as good a time to do it.

Lieutenant STICKLEY. What was the particular question?

Lieutenant BRADFORD. How many originally passed on the original markings?

Senator KEYES. He has asked for the original marks.

Captain WILLIAMS. These are copies. [Referring to papers.]

Lieutenant BRADFORD. Are those the final markings?

Captain WILLIAMS. These are my copies. The originals can be obtained.

Lieutenant BRADFORD. My understanding was that the whole thing was gone over and everybody boosted in order to keep aviation in the Navy. I mean, if they dropped the whole works, there would not have been any aviation, practically.

The CHAIRMAN. Let us find out about that. Is that so, Captain?

Captain WILLIAMS. In answering the question, I would like to state the question as I understand it. My understanding is that in this paper, giving the result of the examination of aviators, which I have here, it does not give the marks; I have not got the marks. The marks can be obtained, but I would much prefer that they were given by others who did the marking themselves and who were personally associated with them; that is to say, by the members or the president of the examining board. I have here, however, the result of the examination of this class of officer. It does not give the mark; it simply gives the number of those who passed and the manner in which they passed. If this is the time to submit that, I would like to submit it. I think, however, in order to keep the record clear for all of us, these questions which I have to answer had probably better be put together.

The CHAIRMAN. I think that would be preferable.

Captain WILLIAMS. If I attempted to talk about the examination now, we might get off the track, and later on it will come in much more aptly in what I have to say about the whole business. If there is anything you want to know about the actual marks and that sort of thing, this can be produced.

Senator KEYES. I think we might want those later.

Captain WILLIAMS. I do not know exactly how the committee wants me to go on.

Lieutenant BRADFORD. What I wanted to bring out was the fact that so few people in the Naval Reserve Flying Corps passed the examination that it was necessary to go over the whole thing, all these examinations taken by these boys, to boost them up in order to keep aviation going in the Navy.

Senator KEYES. I understand you are not prepared to answer that question, but prefer to have it answered by some other officers who conducted the examination.

Captain WILLIAMS. I can answer that question, and will answer it; but the question is, in the temporary absence from the room of Senator Walsh, do you want me to go ahead with this whole subject?

Lieutenant BRADFORD. Maybe it would be better to wait until Senator Walsh returns.

As to my failure in various subjects, many subjects in the examination, due to that I requested a reexamination. It is stated here my service in the Navy, various services and duties—and here is the indorsement by my commanding officer, who was captain in the Navy, line officer, and one whom I have served since November—I think he came in November, 1919. This is from the commanding officer, United States Navy Air Station, Hampton Roads, Va., to the Chief of the Bureau of Navigation, via the Chief of the Bureau of Aeronautics, and is as follows:

"Subject: Lieut. S. N. Bradford, United States Naval Reserve Force., re request for reexamination.

"1. Lieutenant Bradford was attached to this station before I assumed command, from November 3, 1919, to the present time, during my tenure of office as commanding officer. He is considered to be the best lighter-than-air officer that has been attached to this station since I have been here. He is dependable, capable, resourceful, and has always been strictly attentive to his duties. I believe he would be a valuable man to the service if his retention be in any way possible.

"2. In view of the above, in case any officers are permitted to take a re-examination, it is without any compunction that I most forcibly recommend him for such consideration."

That is signed by S. H. R. Doyle.

Senator KEYES. Following that up, what was done?

Lieutenant BRADFORD. Following that up, I have never received any answer so far to that. That was sent through—the date is on that letter, the 14th of October, 1921. I had no experience in any other duties other than duties which were connected entirely with aviation. The question, for instance, was brought up of the difference between navigation of surface craft and aircraft. As to the engineering, of course, a man in aviation must have certain knowledge of that. All that was given.

Our engineering questions were included in an examination on aeronautics. We were asked there to describe motors, etc. The examination on engineering, given by the Navy Department—and which counted as quite a good deal in the final result—was on steam engineering. You were asked to describe steam turbines and to sketch and draw different types of boilers, and things on that order—things you had never seen unless you happened to take an engineering course at some place—and that is just an illustration of the way the examination went. The questions in aeronautics covered engineering and all things that pertain to aeronautics. I read from page 3, the last paragraph:

“The official efficiency record of the candidate as a temporary or reserve officer was given a weight of 300 points out of 1,000 points in determining the final mark and standing of each candidate. That this question of record was given most careful consideration is evidenced by the fact that the board required about five months to pass upon the records of all officers authorized to appear for examination.”

That means that the records were carefully examined before the men took the examination, but how carefully they were examined after they took the examination in order to arrive at his marks there is nothing said about.

Now, in one case there was a lieutenant who passed in grade—that is, he received a commission in the regular Navy of lieutenant, senior grade. Unless I am very much mistaken, during his service as a reserve he received two general courts-martial, was dismissed from the service for a period—disenrolled for the good of the service—for a period of two or three days, I believe. Now, he passed, and got a sufficient mark to permit him to be taken in with two stripes. If his record counted for 300 out of 1,000 points, on a basis of 4—which is the mark used by the Navy—give him a perfect mark in every other thing—all subjects, he could only get, as a final result—seeing that his record was pretty bad, no good—he could only get 2.8; in other words, you take three-tenths of 4, which is 1.2, and deduct that from the perfect mark of 4, and you get 2.8.

I have heard other people say that they received their marks and they had 2.8, or approximately 2.8—2.7 something, a very small difference—and were only given a commission as ensign.

Captain WILLIAMS. I would like to state for the information of the witness that this board of officers who marked these examinations are under oath.

Senator WALSH. Will you state their names for us?

Captain WILLIAMS. I have not the names.

Senator WALSH. They are under oath to do what? To mark the papers properly?

Captain WILLIAMS. Yes, sir; to mark the papers properly.

Senator WALSH. And nobody claims that they did not mark them properly.

Captain WILLIAMS. Admiral Wood was president.

Senator WALSH. We claim that the examination was of such character that injustice was done; not that anybody marked the papers improperly. I think, in fact, from what I hear, that they were so ashamed of the result, and of the severity of the examination, that they marked all the papers all over again.

Captain WILLIAMS. Marked them too high?

Senator WALSH. No; so few passed on the original marking that a review was made and more allowed to pass.

Captain WILLIAMS. They marked them higher than they deserved.

Senator WALSH. They marked them higher than they deserved if the examination was straight, and you ought not to have done it if the examination was fair, but our contention here is that the examination, the time given to it, the nature of the subjects, and the character of the examination were in view of the five years of faithful service given by the men, unfair and discriminatory. It is not that the marking was not correct.

Captain WILLIAMS. I suppose, if this question is first the character of the examination given these men who were rejected on examination, that the question divides itself, first, into whether this was a proper examination, and, second, whether the examination was properly conducted

Senator WALSH. We make no question about the conduct of the examination.

Captain WILLIAMS. I think, personally, that as to whether the examination was properly conducted is a question on which we had better hear those gentlemen who conducted it.

Senator WALSH. We make no question about the conduct of the examination, so far as the marking of papers is concerned. But I do make the point that old men, knowing thoroughly the game of navigation, having no interest, no sympathy, and no knowledge of the benefits of the services of these men, with five years of experience, prepared these examinations in utter disregard of promoting, continuing, and developing an efficient flying corps in the Navy. I think it was criminal for these officers to throw out of the Navy and to prepare such an examination that it eliminated these men, that it cost the Government millions of dollars to prepare and raise up in efficiency such men as they were. I think the whole thing we are trying to get at here is the failure of those officers to have appreciated the value of the services of these men and to have framed an examination based upon the efficiency of their service, if it was possible, along the lines upon which they had been working for five years.

Captain WILLIAMS. All I have to say is that if anybody can suggest a way of eliminating the fit from the unfit other than by examination, plus consideration, and careful consideration, by the most competent people we can obtain on the records, I do not know of it.

Now, if the proposition were to admit all of the naval aviators, regardless of the fact that some of them failed on many subjects—and when I say “many” I use the word advisedly—then that is one thing. But that is not the proposition, as I understood it. The proposition was to admit into the regular line of the Navy those naval aviators among other officers of similar status who passed anything like a reasonable examination.

Sentor WALSH. The proposition ought to have been, I think, to have kept up an efficient, capable, well-trained and well-experienced Naval Corps and not to have decimated it. If their five years' of development meant anything, if it was of any value to have kept these men at this game, if it was any benefit, the examination ought to have been along the line of continuing what they had built up for five years, and not destroying it.

Captain WILLIAMS. Apparently, the idea of the witness is that these young men should have been examined on aeronautical subjects alone.

Sentor WALSH. On subjects alone which they gave their services to their Government on, that alone; the same as the Army and the Marine Corps.

Captain WILLIAMS. We have established, then, a policy whereby we are going to develop a group of officers, a corps of officers, whose time will be devoted exclusively to this kind of aviation upon which these officers have been engaged. Now, that is a question of enormous professional magnitude; a question upon which the most competent observers the world over have devoted an enormous amount of time. Some nations have solved it one way; we, after the most mature deliberation, are prepared to solve it in our way.

At the same time, the solving of it in a theoretical way, which may suit our broad view of all the subjects that the Navy has to deal with, is not, and never has been, entirely in the hands of the department. There are certain requirements for examination, of marking, of experience, of fitness reports, and all that sort of thing, but it must be taken into consideration that there is the question first of all, first and foremost, of justice to the Government, of the perfection of the best plan that our best men can develop.

Sentor WALSH. Pardon me, but your best men ought to have been naval experts; they ought to have had some aviators among them.

Captain WILLIAMS. They were among them. After that, and equally important, we will say, comes the justice to the individual. But do not forget the justice to the Government.

Sentor WALSH. I think we are trying to stress that here.

Captain WILLIAMS. Justice to the Government and justice to the Navy.

Sentor WALSH. And financial loss—

Captain WILLIAMS. Please give me a chance, Senator. The question with respect to these young gentlemen is not a question of justice to the class, or justice to ourselves. It is a case of a group of young men who have failed in competition. Their lives, in the future, no matter whether they stay in the Aviation Corps or whether they qualify for the regular line, would be made up of competition daily, hourly, and nightly, all their lives. Now, when they went into this competition, and when they failed, then we discovered all these things.

Senator WALSH. Five years for that competition has gone and five of their best years have gone, years which they gave to your department and to the Government—five of the very best years. They left their careers, left professions, left their business. I do not know of anything more heartless that I have ever seen in my public service.

Captain WILLIAMS. Your contention is that all of these people ought to have been put in.

Senator WALSH. Everyone that had been recognized and approved by their commanding officer and had been raised in rank, and had been given credit and responsibilities and made good, everyone of them, as Congress intended when it made the number 500.

Captain WILLIAMS. That is also true of 22,000 other officers who served in other activities.

Senator WALSH. If they had left colleges and left professions and been promoted and made good and had discharged their duties faithfully and loyally yes, sir; unless the number fixed by Congress was so small that you only had to pick one. But in this case Congress had fixed the number at 500, and only 200 applied.

Captain WILLIAMS. We tried to get 500.

Senator WALSH. Have you gotten them yet?

Captain WILLIAMS. Yes; I have data here—I did not know whether you wanted it. When we first examined these people—an examination that I am going to ask the president of the examining board to come over here and talk to you about—this examination was largely made up of sample questions that were sent to these young men. Generally, we considered the different things to find how many questions there were that were before these men from September until May as samples of questions that they were going to be examined on. They were examined on those, and I have here a record which I really think includes reserves and temporaries, too; that is the first marking. Do not let us get into any more discussion as to marking, because he will come down and tell you exactly, while this is only approximate. But the first mark that is satisfactory in all subjects is such an ordinary marking as we submit most men to in our examinations, and, believe me, the examination to which these young men were submitted was in no wise excessive or difficult. They passed 27.

Senator WALSH. That bears out what I have said. Of the 298 aviators of the first marking, only 27 passed.

Captain WILLIAMS. To be exact, I have it 295 here. I think some were temporary.

Senator WALSH. And only 27 passed?

Captain WILLIAMS. Yes, sir.

Senator WALSH. That either shows that the examination was a terribly difficult one, or that you had failed to train and prepare these men for this examination—one or the other.

Captain WILLIAMS. Senator, would you not suggest that they had failed to prepare themselves for it?

Senator WALSH. Then you had been recognizing and promoting and honoring and increasing the rank of men who were unfit for it, who had not the character fit to study for examination.

Captain WILLIAMS. Senator, you are anxious to get this information, so I will show you the Prussianism that was practiced on these young men. These were not the only ones; I have 295 that were subject to this—

Senator WALSH. Let us get this intelligently. Of the 27 who passed, I want to know who they were, and their rank, and where they are now, because I have heard it said—and I want to find out about it—that every man that you passed in the beginning was given merely the rank of ensign, or had retained the rank that they passed under, and men who failed were increased in rank and were put on a level of those that passed. I want to know the names and the rank of those 27.

Captain WILLIAMS. I think there is an error, undoubtedly an error, or ignorance on the part of some of these young gentlemen who testified here, which we had better correct right away. If two men are passed, one in reserve, holding the rank—two men holding the rank of lieutenant and reserve, and one passes and the other does not, this man remains a lieutenant in the reserve and the other man becomes an ensign in the regular Navy, and under those circumstances the lieutenant in the reserve will naturally rank the

ensign in the Navy as long as they serve together. It is a curious circumstance of which some of these witnesses have spoken. That is the law.

Senator WALSH. It is a fact that there are many men in this room who failed in the examination and are still retaining the rank of lieutenant, senior grade; is that not so?

Captain WILLIAMS. I am not concerned with the particular circumstances that surround individuals.

Senator WALSH. Well, there are cases like that in the Navy Department now, are there not?

Captain WILLIAMS. Let us get this straight. This is all a complicated question.

Senator WALSH. Lieutenant Prell testified to-day that he failed in the examination. He is still lieutenant, senior grade, is he not?

Captain WILLIAMS. In the reserve.

Senator WALSH. Now, there are men who were lieutenants, senior grade, who have been demoted to ensigns, and are now ensigns.

Captain WILLIAMS. In the regular Navy.

Senator WALSH. So the reserve officer now outranks him and gets twice the pay that these ensigns did who were formerly in the senior grade?

Captain WILLIAMS. Until he is removed.

Senator WALSH. If there is any justice in that, I do not see it. After all, it is money and salary and compensation for services that counts in life.

Captain WILLIAMS. Now, let us go on with this matter, when you are ready. Senator. We have 27 out of these 295, and I think from the figures that some are temporaries.

Senator WALSH. Less than 10 per cent of the men who took this examination in the first marking were found qualified to reach the standard that your bureau had established for admission into the service.

Captain WILLIAMS. Very well; it was the standard that we would exact from other men entering the regular line of the Navy. Now, 27—

Senator KEYES. Let us get at your figures.

Captain WILLIAMS. Now let us take those who were unsatisfactory—and I will shorten this matter as much as possible—those retained under rules 1, 2, 3, 4, 5, 6, 7, 8, and 9.

Senator KEYES. What are those rules that you refer to?

Captain WILLIAMS. I am going to give them to you:

"Rule 1: We took those that were unsatisfactory in one minor subject, and satisfactory in the final multiple to make his grade. We have 25 of them.

"Rule 2: Unsatisfactory in one major subject, but an excellent record to make his grade.

"Rule 3: Unsatisfactory in two minor subjects, but sufficient to show a fair knowledge of same with very good or excellent records and good marking in all other subjects—to make his grade."

I will give the numbers later.

"Rule 4. Same as above, but with marks showing lack of knowledge in these subjects. Next lower grade.

"Rule 5: Unsatisfactory in one major and one minor subject with sufficient marks to show working knowledge in those subjects but with excellent record and high marks in other subjects, to hold grade.

"Rule 6: Same as (5), but marks in either subjects low or with low record or marks in unsatisfactory subjects not showing working knowledge of same or showing a lack of aptitude in his specialty—to lower grade, depending upon general marks.

"Rule 7: Unsatisfactory in two major subjects with good record and working knowledge in other subjects—to lower grades, depending on character of marks in case of lieutenant and lieutenant (junior grade). In cases of ensigns if their marks show aptitude for the service to be retained in grade.

"Rule 8: With less than 2.5 in three subjects, two of which are major, but with very good to excellent records and satisfactory total—to go down two grades or more.

"Rule 9: All ensigns with a satisfactory multiple of 2.5 to retain their grade provided they do not show a marked deficiency in more than two subjects."

Senator WALSH. Those rules you applied after the first marking to try to increase the number of men who passed. Now, will you give us what rules you applied to the 27 who did pass and in promoting them?

Captain WILLIAMS. The 27 who did pass had normal qualifications in all naval examinations; satisfactory, as we call it, in all subjects.

Senator WALSH. But while these 27 passed originally, then you undertook to take some who failed and put them over the passing line. Did you not increase the 27 that passed to the highest rank?

Captain WILLIAMS. We were not allowed to do so by law. How could we?

Senator WALSH. Do you say that it is a fair examination and a fair test if I, for instance, took the examination originally and was one of the 27 that passed and was given an ensignship and this man here—every one of those that failed by 10 or 15 points—that you applied these rules to me and brought him to put over the line and leave me an ensign; do you think that is treating me fair and treating him fair?

Captain WILLIAMS. The relative position of these young men, after passing their examination and being placed in the regular service, is established by law.

Senator WALSH. Why, this examination was not established by law. There is no law that made these rules. No law asked you to reopen these examination papers. You could have closed the book with 27, but you were ashamed to do it.

Captain WILLIAMS. What?

Senator WALSH. Ashamed to go before the country with such a record of throwing out of the service all but 27 out of 295.

Captain WILLIAMS. On the contrary, I think. If you take it the other way, you will see that this is very much more just, that it was our own desire or effort, and an effort which, in view of all the things concerned, was a most strenuous effort to persuade these young gentlemen to study for their examinations. We could not and did not want to take men of years of discretion and make them sit down during office hours and study around and learn their lesson. If they were men of that sort they would be of no use to us in the Navy or in later life. But we took every possible means that is within the ordinary compass of dealing with full-grown men to persuade these men to equip themselves with ability to pass that examination. I grieve to say that I fear there were quite a number of them who were so set on the fact that they knew the whole naval situation from the standpoint of Hampton Roads or Pensacola Flying Field that they paid little or no attention to the fact that others had a different point of view. There were a number, a very large number—181 plus 19—who succeeded in passing some form of examination. There were others that did not.

Senator WALSH. You say 181.

Captain WILLIAMS. One hundred and eighty-one plus nineteen.

Senator WALSH. Of those 295.

Captain WILLIAMS. Yes.

Senator WALSH. You have not answered my question, which I will ask again. I want to know how you justify not increasing the percentage, the passage percentage, of these 27 who did pass as well as to increase the rank of those who failed, or the marking of those that failed?

Captain WILLIAMS. To decrease those who failed?

Senator WALSH. You have said that only 27 originally passed.

Captain WILLIAMS. Yes.

Senator WALSH. Now you said that you made up these rules which were applied to those who failed so as to have a larger number pass; is that true?

Captain WILLIAMS. That is true.

Senator WALSH. Now what rule did you make up to give a corresponding increase to those 27 that passed? You said you were not allowed by law—

Mr. SCHUYLER. Not allowed to give them rank.

Senator WALSH. You either violated the law in taking those who failed and marking them up so that they would pass, or you violated the law in keeping those who passed and did not give them the credit of the increased points, by reason of your nine rules, that you give to those who failed. You can not justify that. If I pass an examination that this man does, and you add 15 points in his favor, why in God's name should I not get 15 points in my favor?

Captain WILLIAMS. What good would it do you if you got it?

Senator WALSH. I would get a higher rank.

Captain WILLIAMS. No; you—

Senator WALSH. How did you make some of these men lieutenants except on their papers? It was because their papers were better than the others, was it not?

Captain WILLIAMS. Yes, sir.

Senator WALSH. And if he got 15 points, or 10 points, he might have been increased from that to ensign, first lieutenant or second lieutenant; is that true?

Mr. SCHUYLER. It is true; but if you were an ensign and took an examination for permanent appointment there is no method by which we could make you lieutenant, junior grade.

Senator WALSH. Did not most of these men apply for lieutenantcies?

Mr. SCHUYLER. They applied for examination for permanent appointment.

Senator WALSH. Without regard to records. But if it is true that I got a mark of 71, and 70 was the passing mark, and this man [indicating] got 61, getting 10 points so as to bring him over the passing mark, and if I got 10 points over my 71 also, I might have gone from ensign to the grade of lieutenant, junior grade.

Mr. SCHUYLER. It would have been necessary for you to have been a lieutenant, junior grade.

Senator WALSH. So on your calculation, from your own statement of the facts here, you have penalized and discriminated even against the 27 that did pass because they had as much right to the benefit of those rules and to have their marking increased, and because of their superior knowledge on these subjects over those who failed, as these men that failed.

Captain WILLIAMS. I do not get you, Senator. In the first place, you say that this examination was conducted in a manner unjust to these 95 of whom we are speaking—I presume there are 95.

Senator WALSH. I claimed that it was an injustice to all of them. I claim these 27 have been treated unjustly.

Captain WILLIAMS. No; 95—an injustice that will help the Navy tremendously. Senator, I would not do an injustice, or what I considered an injustice, for anything in the world, if I am conscious of it. I can not understand why we should argue for these men, these 95, who, after all this consideration, could not pass any kind of an examination. Now, you have brought up the question that they were required to write the questions on a paper. I would like—

Senator WALSH. Is that a fact, that they were required to do so?

The ACTING CHAIRMAN (Senator Keyes). Senator, it is now 1 o'clock, and I think, as we will have to discuss the matter further, we will now adjourn. I want to find out whether Mr. Bradford has anything more to say.

Lieutenant BRADFORD. I would like to explain one thing to the captain as to the markings. I did not mean to make any assertion that there was anything wrong with the marks, other than that I wanted to lay stress on the fact that sufficient consideration was not given to the records.

The ACTING CHAIRMAN. The 300 points that you referred to?

Lieutenant BRADFORD. Yes, sir.

The ACTING CHAIRMAN. The committee will now adjourn until to-morrow morning at 10 o'clock.

(Whereupon, at 1.10 p. m., the committee adjourned until to-morrow, Saturday, April 8, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

SATURDAY, APRIL 8, 1922.

UNITED STATES SENATE.
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock, in the committee room, Capitol. Senator L. Heisler Ball presiding.

Present: Senators Ball (chairman) and Keyes.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. Proceed. The committee will be in order.

Senator WALSH. To clear up the record. Mr. Chairman, in your absence yesterday we were having a discussion about how many passed the examination originally. There was a review, and a number did pass the review that failed on the original examination. I want to pursue that further.

May I ask you, Captain Williams, first, how many reserve and temporary officers took the examination for commissions in the regular Navy, of all types and classes.

Captain WILLIAMS. I am not speaking of aviation.

Senator WALSH. Yes; of everything.

Captain WILLIAMS. It is all hands.

Senator WALSH. Yes.

Captain WILLIAMS. The number who took the examination was 1,651.

Senator WALSH. Very well; that answers my question. Of that number, 1,651, how many of them were applying for commissions in the flying corps?

Captain WILLIAMS. There is no flying corps.

Senator WALSH. Did not you have a flying corps during the war?

Captain WILLIAMS. We did.

Senator WALSH. When did you abolish it? On what date did you abolish the flying corps that you had during the war?

Captain WILLIAMS. That is a different thing.

Senator WALSH. Let us not be technical about these things. Captain.

Captain WILLIAMS. I am not trying to be. I am trying my best to get on the same line with you. Suppose I amend the question, then, to say that none of these 1,651 were taking such examination.

Senator WALSH. I do not want you to amend it. I want you to answer my question. You tell me that you had a flying corps during the war. I want to know when you abolished it.

Captain WILLIAMS. When was that abolished?

Mr. SCHUYLER. We have a Reserve Flying Corps.

Captain WILLIAMS. We have a Reserve Flying Corps.

Senator WALSH. Why did you hesitate about it?

Captain WILLIAMS. Because I do not know.

Senator WALSH. Is there anybody that knows whether or not we have a flying corps in the Navy?

Captain WILLIAMS. Do you want to question this aviation officer?

Senator WALSH. I protest against this reluctance to give me an answer.

Captain WILLIAMS. That is what I am here for.

Senator WALSH. There is nothing simpler than my question. I asked you how many took the examination, and you told me 1,651.

Captain WILLIAMS. And then you asked me how many of that 1,651 were applying for commissions in the flying corps, and I said there is none.

Senator WALSH. And then you tell me that there is what?

Captain WILLIAMS. I tell you there is a Reserve Flying Corps.

Senator WALSH. What is the difference between a regular and a reserve flying corps? There is a flying corps, and that is in the Navy.

Captain WILLIAMS. There is a Reserve Flying Corps in the Navy.

The CHAIRMAN. Let me ask a question that may settle this. Has the bill passed creating an aviation division in the Navy, as yet?

Senator KEYES. The Bureau of Aeronautics?

The CHAIRMAN. Yes.

Senator KEYES. Yes.

Senator WALSH. Is there a Bureau of Aeronautics now in the Navy?

Captain WILLIAMS. Yes. Instead of our getting at cross purposes on this thing, let me suggest there is an aviation officer who has all of this information. Suppose you get it from him.

Senator WALSH. I simply want statistics. I want to know how many young men there were in the Flying Reserve Corps who took the examination.

Captain WILLIAMS. That is a different thing.

Senator WALSH. It must be perfectly plain.

Captain WILLIAMS. You want to know how many reserve officers in the Reserve Flying Corps took the examination to become permanent officers, not in a flying corps, but in the Navy?

Senator WALSH. Yes.

Captain WILLIAMS. Two hundred and forty-four.

Senator WALSH. Why did you on yesterday repeatedly use the figures 295?

Captain WILLIAMS. I explained, not once, but, to the best of my knowledge, a half dozen times, that the 295 included not only reserve officers, but to the best of my knowledge and belief, included also some temporary officers.

Senator WALSH. Which is the number of reserve officers that took the examination for permanent commissions in the Navy, 244 or 295?

Captain WILLIAMS. Two hundred and forty-four reserve officers, aviators, took the examination for permanent officers in the line of the Navy. Two hundred and ninety-five reserves, aviators, plus temporaries, aviators, took the examination for the line of the Navy. Do not let us mix that up.

The CHAIRMAN. Let me see if I understand it. Of the aviators there were 295?

Captain WILLIAMS. Yes, sir.

The CHAIRMAN. Two hundred and forty-four of those were reserve officers, and the difference between 244 and 295 represented the temporaries.

Captain WILLIAMS. Yes.

Senator WALSH. In other words, 51 temporary officers.

The CHAIRMAN. Yes.

Senator WALSH. Temporary officers means men who have had training in the Regular Navy at some time during their life, and come back to active duties.

Captain WILLIAMS. I think a more exact definition of it would be to say that temporary officers were those who, in addition to their temporary rank, held some permanent rank in the Regular Navy, enlisted or commissioned, with a few exceptions.

Senator WALSH. Of the 1,651 reserves and temporary officers that took the examination which the Navy prepared, how many passed in the first review of those papers?

Captain WILLIAMS. I am unable to tell you at this moment.

Senator WALSH. You said yesterday that 27 passed; you used the figure 27, and I want to know whether that applies to the 244 reserve aviators, or whether it applies to the entire 1,651.

Captain WILLIAMS. Yesterday we were discussing—

Senator WALSH. I wish you would answer my question.

Captain WILLIAMS. We were discussing the figure 295, and I attempted to explain that some were reserves and some were temporaries. That 27 referred to the 295.

Senator WALSH. That is what I want to know.

Captain WILLIAMS. If you want any more specific information, I might get it for you.

Senator WALSH. So that of the 295 reserve and temporary officers that had been connected with the flying corps, only 27 at first passed the examination.

Captain WILLIAMS. If you choose to put it that way. I disagree with you. That is your way of expressing it.

Senator WALSH. Of the 1,651 who took the examination, how many, on the first inspection of the papers and on the first report of the examining board, passed the examination?

Captain WILLIAMS. I have not those figures with me.

Senator WALSH. Can you get them for us?

Captain WILLIAMS. Would it not add materially to this examination if you got the president of this examining board to come here and get these answers from him—get them directly from him—instead of getting them indirectly through me?

Senator WALSH. I would not have gone into the question, but you yourself yesterday raised the question, and Senator Keyes will bear me out, that only 27 passed originally; that you then adopted some new rules of reviewing the papers and increased the number. I want simply to get it accurately in my mind, because some of these young men took that 27 to mean 27 of the total, 1,651, and I merely wanted to make it clear that the 27 applied only to the 295 or to the 1,651.

Captain WILLIAMS. Bear in mind, please, Senator, that in my answers I am giving you the best data I have before me, but I am speaking from second hand. If you want to go into it more accurately you can get the members of the examining board here, and Commander Spencer, who marked the examination papers. Also there are other officers whom you can bring in if you want more accurate information.

Senator WALSH. May I interrupt our discussion to ask Commander Spencer if 27, which is said to represent the total number that passed the original examination of reserve officers in the flying corps, was the total number that passed of the 1,651 who applied for examination?

Commander SPENCER. I am unable to state, as my connection with the examining board merely involved marking some of the examination papers.

Captain WILLIAMS. I may say that I am giving you my answers from the record given me by the present senior member of the examining board.

Senator WALSH. We are talking about the first review of the papers, from this examination, as a result of which it is said that 27 passed; afterwards there were more added on.

Captain WILLIAMS. This record says "aviators examined for transfer for permanent appointment in the line, 27." That is the first time; or, perhaps, what you have reference to, 9.5 per cent of 295—apparently.

Senator WALSH. Of those 27 can you tell me how many were reserve officers—how many of them were of the 244 reserve officers?

Captain WILLIAMS. I have not that data.

Senator WALSH. You could get it for me, of course?

Captain WILLIAMS. I could get it for you.

Senator WALSH. Did the examining board make a public report of the examination or was it a secret report?

Captain WILLIAMS. It certainly was not a secret report.

Senator WALSH. Let me put it another way: Did the examining board go to the then Secretary of the Navy and say: "The result of our examination is that only 27 aviators have passed, and we want your instructions now as to what we should do"; or did the examining board itself make new rules about marking the papers—about which you testified yesterday—and reviewing them, changing the standing, and increasing the numbers that passed the examination?

Captain WILLIAMS. Personally I am unable to say, but it is perfectly possible to get officers here who can give you that information. If an impression is of any value to you, I can give it to you.

Senator WALSH. I would like to have the impression.

Captain WILLIAMS. My impression is that this action on decreasing the difficulty of this examination was reported to the Secretary of the Navy—but I have no right to speak very authoritatively on that subject.

Senator WALSH. Have you an impression that of the 1,651 reserve officers and temporary officers, only 90 were passed on the first examination? Have you any impression about that at all?

Captain WILLIAMS. None whatever. It has never been brought into question. It has never been brought up, so far as I know.

Senator WALSH. That is all I have to ask you, Captain Williams. Senator Keyes will understand there was a question on the interpretation of your testimony as to whether the 27 applied to reserve aviators or to both reserve and temporary.

Senator KEYES. My understanding was that the 27 applied to the 295.

The CHAIRMAN. And that is correct, is it?

Captain WILLIAMS. Yes, sir.

Senator WALSH. I will ask you one other question: On the review of the examination papers, to what extent was that number—27—increased?

Captain WILLIAMS. I have before me a memorandum on that subject, unsigned; and within the elements of accuracy it foots up the proper total, under the note "Retained under rule 1," which covered those who were unsatisfactory in one minor subject but satisfactory in a final multiple, so as to make the grade—that is, rule 1. Under that they got 25 more.

Senator WALSH. I personally would want the total. I would be satisfied now with the total.

Captain WILLIAMS. That is 52.

Senator WALSH. By reason of the new rules which were made the number was increased from 27 to 52?

Captain WILLIAMS. Yes.

The CHAIRMAN. Let me understand that. That was really on your first examination but not on the first grading. Twenty-five was added by taking the total, although there had been a failure in one branch: the average on the total was sufficient to bring 25 additional up, making it 52 that passed on the first examination. Is that correct?

Captain WILLIAMS. That is correct.

Senator WALSH. Exactly. What was the total number that was held to have passed the examination after the review was made and the nine rules that you applied to a reexamination of the papers were invoked—about 151. was it not?

Senator KEYES. One hundred and fifty-two, I think.

Captain WILLIAMS. That would be reserves. We are talking about 295.

Senator WALSH. I want to have both reserves and temporaries.

Captain WILLIAMS. I must get it for you.

Senator WALSH. Is it 151 or 152 of reserves?

Captain WILLIAMS. Apparently it is 152 of class 5.

Senator WALSH. One hundred and fifty-two of class 5?

Captain WILLIAMS. Yes. There are other reserves besides 5.

Senator WALSH. Yes. Were these 125 men—

Captain WILLIAMS (interposing). One hundred and twenty-five?

Senator WALSH. Yes; 125 was what you used after the 27; only 27 passed originally.

Captain WILLIAMS. One hundred and twenty-five?

Senator WALSH. One hundred and twenty-five were added afterwards.

The CHAIRMAN. That is not my understanding. If my understanding is correct, there were 27 passed first, but on review of the papers they found that 25 additional ones had passed, bringing their total grade up sufficiently for passage, although having failed on one subject.

Senator WALSH. Only 27 passed originally. Then the examining board made a set of rules, nine rules, and under the first rule they let in a certain group; 25 came in.

The CHAIRMAN. Let me ask questions as we go along, because I want to get this in my mind as well as in yours. Were those rules adopted after the examination was held or previously?

Captain WILLIAMS. I want to state two things here.

Senator WALSH. Answer the question first.

Captain WILLIAMS. If we are talking about reserves, then these figures must be amended, otherwise we are getting off the track. If we are talking about 295, then I can start figuring.

The CHAIRMAN. We are talking about the 244, I take it.

Senator WALSH. Exactly.

Captain WILLIAMS. If we start with 244, we are going to strike—

Senator WALSH. You do not know how many of the 244 passed originally?

Captain WILLIAMS. No; but I can get it for you. If we start to talk about 27, then if we want to draw any results we must work with 295.

Senator WALSH. It is very important for me to have the 244, because I can well understand how a temporary officer who has been on the ship, who has been to sea, could have passed this examination. I am raising the question that these 244, who had never been on ship, never had had any experience in navigation, would have had difficulty in passing.

Captain WILLIAMS. We are talking about mathematics, Senator, and when we subtract 27 from 244 we have made a totally false assumption. We must

subtract it from 295. If we want to work with the reserves alone, then we can get the accurate number of reserves passed. Otherwise our premise is false, and our conclusions will be false.

Senator WALSH. Those 27 may be; so far as you know, all temporary officers in the flying corps; and none of them reserves, so far as you know.

Captain WILLIAMS. I would hardly think that.

Senator WALSH. I hardly think so, too; but so far as you know that may be.

Captain WILLIAMS. I do not think so.

Senator WALSH. So you don't know whether the facts show that only 3 or 9 reserve officers in the flying corps passed the original examination.

Captain WILLIAMS. I have here a note which says that the number of reserves in class 5 who took the examination was 244. But I want to prevent any of us from making assumptions which may not be complete. You are asking me for accurate information. Do not think I am splitting hairs, but there are four other classes of reserves, you see. One is class 5.

Senator WALSH. Is class 5 the flying corps?

Captain WILLIAMS. Five is the flying corps.

Senator WALSH. That is all I am talking about.

Captain WILLIAMS. The others presumably were temporaries, but I would not make such a statement unless I had some data on which to go. The question of the different rules is, therefore, as the chairman has stated—

Senator WALSH. He asked you if you made those rules after this examination when you found only 27 had passed, or were they made before. That is the question.

Captain WILLIAMS. On the question of the examination I should much prefer for you to get it at first-hand from those who were conducting it.

Senator WALSH. You attempted yesterday to testify to this.

Captain WILLIAMS. My testimony on that subject is only second hand.

The CHAIRMAN. I withdraw my question under the circumstances.

Captain WILLIAMS. I can speak of the intent of the thing.

Senator WALSH. This was gone into, Mr. Chairman, during your absence. There was some little confusion, and I wanted to get the figures accurately in my mind.

Have you the data I asked for yesterday?

Mr. SCHUYLER. It is being prepared.

Senator WALSH. Will you get the data, the names of those 27 men who originally passed this examination, and what commission was given them. Then get me the names of all the men that were under the reexamination.

The CHAIRMAN. Senator, just let me make one suggestion. I would also get the names of those 25 men, making the total 52, that passed under rule 1.

Senator WALSH. Yes. There were nine rules. It does not make much difference to me. The point I am trying to argue is, if your original—

The CHAIRMAN. Pardon me, just one moment, Senator. Also find out for us as to when those rules were adopted.

Senator WALSH. Whether it was after the first review of the papers or not.

Captain WILLIAMS. May I give you an impression again? My impression is that these so-called rules—"rules" is rather a hard name, but let it stand—were the methods adopted of review—the first review of these papers, the first review of these questions, the first, second, third, fourth, fifth, sixth review—consequently it is inevitable that those methods or reviewing these papers were adopted after the board first met.

Senator WALSH. That is what I had supposed from the testimony yesterday. In other words, the number seemed so small that you felt some other standard of testing the examination should be applied.

The CHAIRMAN. Were those men not graded in their rank in proportion to their examination and their marks?

Captain WILLIAMS. Exactly.

The CHAIRMAN. Why were those 27 who originally passed not advanced in grade in the same proportion as those who had failed were advanced and permitted to pass?

Senator KEYES. If I understand your question, it is this: Supposing a man is among the 27 who passed and is given certain marks. Later a different standard was adopted. As a result of the marks given this man in the class of 27, he perhaps is commissioned as an ensign. I do not know what commissions were given, but suppose that he was given a commission as ensign. I think the Senator's point is, if you are going to change the standard, should not that man, who is one of the original 27, receive something additional which would entitle him to a higher commission than ensign? Is not that your point?

Senator WALSH. Yes; exactly.

Captain WILLIAMS. Once more I would like to call attention to the fact that I am speaking largely at second hand. I am doing my best to aid the committee. If I am mistaken, I want to apologize. May I call attention to this language in the law of 1920:

"That officers holding temporary commissioned and warrant ranks in the Navy and members of the Naval Reserve Force of commissioned and warrant ranks shall be eligible for transfer to an appointment in the permanent grades or ranks in the Navy for which they may be found qualified not above that held by them on the date of transfer."

The CHAIRMAN. To follow that out, these original 27 were transferred into the Navy at the grade they held previous to transfer.

Captain WILLIAMS. Exactly. That is my understanding.

The CHAIRMAN. That settles it.

Senator WALSH. Will you also make a note of this? I want the department also to furnish this committee with such information as they themselves have compiled and such information as they have gotten from other sources as to the cost of training an aviator. A young man yesterday, Mr. Preil, claims he had a bulletin furnished to him when he was at Pensacola showing the cost was between \$40,000 and \$45,000. Of course, I am going to compute the financial loss to the Government in training these men and then removing them from the service.

Captain WILLIAMS. I want to say to the committee that I have been for many years earnestly trying to compute the cost of training a naval cadet. It is a question that has been before all of us for many years, and I have never seen an answer that was in any way satisfactory. It depends entirely on what to charge to that element of life. What does it cost to train a naval cadet?

Senator WALSH. As to the cost of training an aviator, I understand there have been figures supplied to the Navy by the National Committee on Aeronautics, and I would ask that that information be forwarded to the committee.

Also I want, which I think I have requested already, the names of those 27 young men and the ranks they were given, as well as the same information for the others that were added.

I also want the total number of the 1,651 that passed, and what procedure the examining board took to increase their number.

Captain WILLIAMS. I think you had better ask Admiral Bryan, the head of the examining board, for that.

Senator WALSH. I want to ask this question of you, along this same line: Is it a fact that if the examining board reported to the Secretary of the Navy that only 27 of these reserve officers had passed and qualified under the standard fixed by the examining board, and that only a small number of the 1,651 passed, with the result of accepting only that number, it would have meant the demotion of regular line naval officers in high rank, because the law requires so many ensigns, so many lieutenants of junior grade, and so many lieutenants, senior grade, in order to have men in high rank. Is there anything laughable about that?

Captain WILLIAMS. Senator, I do not know who told you to ask that question, but the answer is most emphatically not.

Senator WALSH. That answers it.

Captain WILLIAMS. Let me continue.

Senator WALSH. You have answered.

Captain WILLIAMS. No; sir. You have cast aspersions on these men who were conducting this examination. These men, 1,200, were introduced into the Navy. In addition to that were 200 other men introduced into the Navy, 200 men introduced without examination. It was not at any time the desire of naval officers that these men should be introduced into the Navy, because we felt, and do feel, that we could produce in time a better, more homogeneous corps, if we could get them with the same education that we all had. Those 1,200 were put in and those two hundred and odd were put in, and by no solicitation of these higher officers who were seeking promotion.

Senator WALSH. Very well.

Captain WILLIAMS. Let me go further.

Senator WALSH. All right.

Captain WILLIAMS. And say that these ideas I speak of I have recently had occasion to verify in writing for the naval committee, and they are available for your inspection.

Senator WALSH. Now, you have answered me. See if I get you correctly. I am throwing no aspersions. I asked, however, if only a few of these men were demoted, would it affect the number of persons in high rank, and you said not.

Captain WILLIAMS. I did not mean to say so.

Senator WALSH. Did not you say no to me in answer to that question?

Captain WILLIAMS. I did not mean to say no in any such connection.

Senator WALSH. I will ask the stenographer to read my question and your answer. You suggest that I am casting aspersions, and I now ask you what the fact was.

Captain WILLIAMS. Will you repeat the question?

Senator WALSH. The stenographer will read it, together with your answer.

(The stenographer read as follows:)

"Senator WALSH. I want to ask this question of you along this same line: Is it a fact that if the examining board reported to the Secretary of the Navy that only 27 of these reserve officers had passed and qualified under the standard fixed by the examining board, and that only a small number of the 1,651 passed, with the result of accepting only that number, it would have meant the demotion of regular line naval officers in high rank, because the law requires so many ensigns, so many lieutenants of junior grade, and so many lieutenants, senior grade, in order to have men in high rank. Is there anything laughable in that?"

"Captain WILLIAMS. Senator, I do not know who told you to ask that question, but the answer is most emphatically not."

Senator WALSH. I ask you now if it is not a fact that the law requires a certain number of ensigns in order to have lieutenants of junior grade.

Captain WILLIAMS. No, sir; it does not.

Senator WALSH. A certain number of lieutenants, junior grade, in order to have lieutenants, senior grade, and a certain number of lieutenants, senior grade, in order to have lieutenant commanders. Do you say "no" to that?

Captain WILLIAMS. Does the committee want me to explain the system of providing officers in the Navy?

Senator WALSH. I think I am asking you a fair question.

Captain WILLIAMS. No; you are not.

Senator WALSH. I am trying to find out if the number of men in a given rank has any relationship to the number of men above it.

Captain WILLIAMS. In some ranks it does; in other ranks it does not.

Senator WALSH. Must there be a certain number of ensigns in order to have a certain number of lieutenants, junior grade?

Captain WILLIAMS. There must be a certain total number of the line officers in order to have a certain percentage of admirals, of captains, of commanders, of lieutenant commanders, and of lieutenants. The sum total of the ensigns and of the junior lieutenants forms one per cent—one different per cent—it is not separated.

Senator WALSH. Do you say to me that if these 1,651 men failed, every other man in the Navy would retain his rank to-day, even if they were all removed from the service?

Captain WILLIAMS. I say no such thing.

Senator WALSH. You do not say that, then. If the number of men in the Air Service who were lieutenants, senior grade, lieutenants, junior grade, and ensigns were 244, and they were all wiped out, would that reduce the number of lieutenant commanders?

Captain WILLIAMS. I think the number of lieutenant commanders would be reduced by the operation of other laws. It would take a calculation to tell whether that number you are speaking of would have been greater or less in effect at the time.

Senator WALSH. You can not tell us whether the taking of 244 men who are lieutenants of the junior and senior grades out of the service would affect a number of lieutenant commanders?

Captain WILLIAMS. The 244 you speak of were not in the regular service at that time. The putting in of 240 men would have, let us say, increased the total number of line officers 240. That 240 would have increased the number of admirals 1 per cent, the number of captains 4 per cent, and so on. But the leaving of them out in accordance with your question would not have demoted anybody, because the number was then there.

Senator WALSH. So that the fact that these 1,651 line officers in the reserves and temporaries corps were removed from the Navy would not have affected the rank of a single man in the Navy. Is that your answer?

Captain WILLIAMS. No, sir; it is not.

Senator WALSH. Did I not understand you to say that before?

Captain WILLIAMS. No, sir.

Senator WALSH. Then, if all of these 1,651 men had failed and been removed, there would not have been some demotions in the line officers of the Navy?

Captain WILLIAMS. There would eventually, but not for that reason.

Senator WALSH. For what reason would there have been?

Captain WILLIAMS. On account of other law.

Senator WALSH. I asked you if it was for the reason that these 1,651 men were taken out of the service.

Captain WILLIAMS. And I say no. You are talking, Senator, about a very complicated proposition. On the 1st of January the temporaries ceased to exist. They were abolished and naturally they lapsed back.

Senator WALSH. The 1st of January when?

Captain WILLIAMS. The 1st of January, 1922.

Senator WALSH. We are not talking about that. These men were inducted into the service long before the 1st of January, and these examinations were last year.

Captain WILLIAMS. We are discussing the question of whether these officers of high rank, as you started to say, would be demoted.

Senator WALSH. Yes; under the law that existed when these examinations were had.

Captain WILLIAMS. I am trying to understand your question, but the subject is a very complicated one and is not covered by one simple fact. On the 1st of January, 1922, these temporaries all lost their temporary commissions and lapsed back to what they were before. That was by a different law altogether.

Senator WALSH. If these 295 men, of the 1,651, had resigned from the Navy last May, and left the Navy, would there have been any of high rank demoted in the Navy? If that can not be answered, I do not know what kind of a system you have got.

Captain WILLIAMS. If I understand your question—

Senator WALSH. If that is not plain English, I do not know what is.

Captain WILLIAMS. Let me repeat it to you.

Senator WALSH. The fact of a wholesale dropping of 295 men, officers in the Navy, either does or does not affect the ranks of other men.

Captain WILLIAMS. If I understand the question to which I am asked to reply, it is whether the dropping of 1,650 men—

Senator WALSH. Not now, but last May; the law states January 1.

Captain WILLIAMS. Before that time, 1,651 men, some of whom were temporary appointments, some of whom were reserve appointments—

Senator WALSH. Yes.

Captain WILLIAMS. If the dropping of those men from the temporary grades to the reserve grades, if they had lapsed back to the civilian status—

Senator WALSH. Yes.

Captain WILLIAMS. Whether that would have demoted any of the high ranking officers.

Senator WALSH. Any officer at all.

Captain WILLIAMS. Any officers in the Navy.

Senator WALSH. Yes.

Captain WILLIAMS. I state now, without a very careful examination, and without minute exception, no.

Senator WALSH. If 5,000 resigned, would any ranks be affected?

Captain WILLIAMS. The effect would have been the same.

Senator WALSH. So that the relationship of the number of men in a particular grade does not affect the number of men who are officers in another grade; is that true?

Captain WILLIAMS. No.

Senator WALSH. It does not?

Captain WILLIAMS. Wait a minute.

Senator WALSH. The Secretary of the Navy—

Captain WILLIAMS. The further we go with questions that are half answered the more confused we become. I understand your question to be that the number of officers—

Senator WALSH. Let me put it again to you. I am trying to find out a simple thing, as a Senator knowing nothing about my Navy, very little about it, because of the many problems I have. I want to know if there is any law which fixes the number of men in a given rank in the Navy corresponding to the number of men in another rank. That is a plain, simple question.

Captain WILLIAMS. There is a law in the Navy—

The CHAIRMAN. May I make a suggestion? It seems to me the only solution to this controversy between you two would be to state clearly the law governing the number of officers in each rank. You have a certain number of officers allowed. There is a certain percentage of admirals, a certain percentage of each on down. If you state that clearly, then we can draw our own conclusions as to whether promotion from the reserves would affect in any way the demotion of officers of the line.

Senator WALSH. Exactly.

The CHAIRMAN. I will ask you to state briefly the officers, the ratio, if you can give it, the total number of line officers and the ratio of admirals, etc.

Senator WALSH. Under the law.

The CHAIRMAN. Then with one or two questions we can bring out your point, I think.

Senator WALSH. I am not familiar with the law, but I think he could, off-hand, tell me very quickly, because it has been suggested to me that the number that pass the examination would have some influence on the number of men who had high ranks. I am trying to present the case of these boys.

The CHAIRMAN. I think we can get this with just a few questions.

Captain WILLIAMS. We can get this in another way when we know what you want.

The CHAIRMAN. I think so. It gives us that concrete evidence in the record.

Senator WALSH. Exactly.

Captain WILLIAMS. The total number of line officers in the Navy is counted in accordance with law.

Senator WALSH. Counted by whom?

Captain WILLIAMS. In accordance with law.

The CHAIRMAN. And that would vary with different years. Different appropriations make the total.

Captain WILLIAMS. The present law is as often as the Secretary may want it. The old law was once or twice a year.

Mr. SCHUYLER. Once a distribution has been made that holds good for those ranks until a subsequent distribution is made.

Captain WILLIAMS. After that number is ascertained for the line officers of the Navy the Navy is allowed 1 per cent of rear admirals.

Senator WALSH. One per cent of what?

Captain WILLIAMS. One per cent of that number of rear admirals, 4 per cent of that number of captains, 7 per cent of that number commanders, 14 per cent of that number lieutenant commanders, 32½ per cent lieutenants, and then the lieutenants of junior grade and the ensigns together make up the remainder, or 41.5 per cent.

The CHAIRMAN. To follow that out I want to ask a question: It is very evident if from the Reserve Corps there should be a large number passed with a high rank that in order to keep that particular percentage there would be some demotions; that is correct, is it not?

Captain WILLIAMS. It is not very evident; it is possible.

Mr. SCHUYLER. Senator, there is no method by which an officer can be demoted under those conditions. It is a question which we have never had arise yet. If on one distribution date we are allowed four captains and on a subsequent distribution date we are allowed three captains, there is no method under the law by which one officer can be reduced in rank.

Senator WALSH. Here was a method of demotion—this examination.

Mr. SCHUYLER. This is a different proposition.

Senator WALSH. They were going into the regular Navy.

Mr. SCHUYLER. These people are going in for original appointment in the regular Navy, not for promotion in rank or anything of that kind.

The CHAIRMAN. They are given rank in proportion to their grade. Suppose a large number, 700 of them, should pass as lieutenant commanders, it would increase your percentage of lieutenant commanders—which is 14 now—to 20 or 25. Then there would have to be a readjustment of your officers to make it accord with your law. The law provides you shall have 1 per cent of rear admirals, 4 per cent captains, and so on down. If a large number should

pass with this rank then certainly there would have to be some demoted. Of course, you would increase your number of officers, and it would allow you to increase the percentage.

Captain WILLIAMS. I have not much confidence in my explanation, but let me try it. Suppose we had a total number of line officers of 4,000 before this examination was held. Suppose we had 200 lieutenants who came in by this method. We would then have 4,200 total officers, would we not?

The CHAIRMAN. Yes.

Captain WILLIAMS. Therefore we would increase the percentage of lieutenants from 14 per cent of 4,000, which is 560, to 14 per cent of 4,200. Consequently you increase the number.

The CHAIRMAN. You increase the number of lieutenants?

Captain WILLIAMS. Yes.

The CHAIRMAN. But you have only increased your whole number of line officers 200, and you have increased your lieutenants 200. Therefore your percentage would be 14 per cent of the 200 additional, and you would have the difference between 14 per cent and 100 per cent increase of your lieutenants.

Captain WILLIAMS. That is true.

Mr. SCHUYLER. In that event the total number of lieutenants then would be out of proportion to the number allowed under the law.

The CHAIRMAN. That is the point.

Senator WALSH. You are developing exactly the thing I wanted to bring out, but not knowing the law, I was not going about it right. I was crudely trying to show there was some ratio of one rank to another; and I did not get much help.

The CHAIRMAN. The question is whether there would not be some demotions under those circumstances. Of course, that is rather far-fetched, I think. I do not imagine you would ever have all entering in one special class like that.

Mr. SCHUYLER. Senator, that question has been put up to the Judge Advocate General of the Navy Department, and he has held that this latter law of June 4, 1920, which authorizes the appointment of these individuals to the permanent Navy would not result in a demotion in that event if these people should be in excess in the rank of lieutenant.

The CHAIRMAN. That is his construction of the law.

Mr. SCHUYLER. Yes.

The CHAIRMAN. That answers your question.

Senator WALSH. When was that construction made?

Mr. SCHUYLER. That was made, I believe, in 1920, shortly after the passage of this act.

Senator WALSH. Before the examination?

Mr. SCHUYLER. Before the examination, I think.

Captain WILLIAMS. I want to call attention to one thing that seems to be a corollary to this line of questioning, and that is this: Suppose we had a given number of line officers, 4,000, and they took in 300 reserves. There might result more promotions than there would if they took in 200.

Senator WALSH. May I ask you a question in this connection, and I wish the chairman would help me out. Suppose this really happened, that 100 of these young men, when they were lieutenants, junior grade, were promoted to lieutenants, senior grade, as many of them were just before the examinations. Would that promotion have increased the number of lieutenant commanders, or have an influence in fixing the number?

Mr. SCHUYLER. No, sir.

The CHAIRMAN. Does that answer carry the full effect, because as your Navy is reduced, of course, you have got to reduce the line officers.

Senator WALSH. I found it hard getting that from the Navy; I am glad you have it.

The CHAIRMAN. There has got to be some demotions.

Captain WILLIAMS. I do not like to let this go this way. Our personnel laws are very, very complex and complicated. They are not our fault. We are serving now under the act of August 29, 1916, which was a very constructive and valuable piece of legislation. That was before the war came on, and a large amount of these peculiarities in Navy personnel has been tied on to that as a basis, and will now from time to time doubtless be taken off by Congress.

Senator WALSH. Will the chairman help me in the point I am trying to make, which was the opposite that we developed before. Suppose a year ago a hundred of these men were promoted from lieutenant, junior grade, to lieutenant, senior grade, just before the examination: Would that have affected this number of

lieutenant commanders? Would it have led to a decrease in the number of lieutenant commanders?

The CHAIRMAN. It certainly would, but they were already promoted to that before they held this examination.

Senator WALSH. No; I am outside, in the general Navy. A large number of these men were a year ago promoted from lieutenant, junior grade, to lieutenant, senior grade. Did that promotion give an opportunity to promote some older lieutenants, senior grade, to lieutenant commanders?

The CHAIRMAN. I have noticed, in the committee, when we have promotions in one line, we have them in about the same percentage in all the lines, the relative percentage is about the same.

Captain WILLIAMS. Our scheme of promotion is the most sane and logical one that we have been able to produce.

Senator WALSH. I had supposed, Mr. Chairman, that to be the fact, that a change in one grade affects the other grades.

The CHAIRMAN. Exactly, but not so much in the higher grades, because the percentage is higher.

Mr. SCHUYLER. Senator, may I ask if you are speaking of reserve officers?

Senator WALSH. No. Of course, my claim, if there is anything in it, is that this affects the regular naval officer.

I will proceed with the testimony.

The CHAIRMAN. I would suggest it might be well to go on and get testimony of all these young men, and then these points of law and points of procedure can be taken up.

Senator WALSH. I did not want to proceed under conflicting views, and before I proceeded with the taking of further testimony I wanted, if possible, to get definite, accurate information upon which to base my case.

The CHAIRMAN. We will send for anybody in the Navy that you desire, that you think can give us light.

Senator WALSH. Until yesterday I never knew but what these 151 men passed originally. It was by mere chance I found out that only 27 was the number. I had heard rumors there had been a reexamination. So I had, of necessity, to look for some information. I do not wonder you smile at my ignorance of naval affairs.

Captain WILLIAMS. I am trying my best—

Senator WALSH. I want you to know that I am very serious about this. I think very serious injustice has been done these men. I have nothing against the Navy; I am one of its best friends, and in proceeding with this case I want to help the Navy, to help it win the esteem and respect of the American people.

Captain WILLIAMS. I am trying my best to understand you, Senator Walsh. If I interrupted you, I hope you will excuse me, because I think perhaps I may give you information on these technical subjects which will prevent you and me from getting into these misunderstandings.

The CHAIRMAN. I am satisfied that before we finish this investigation we will get all the information we desire. It is my experience that before we are through we get at the kernel of the situation and get what we desire. We will send for any person connected with the Navy that the Senator thinks can give us any additional information.

Senator WALSH. I appreciate that.

The CHAIRMAN. We want all the light that we can get.

TESTIMONY OF LIEUT. SMITH NORRIS BRADFORD—Continued.

Senator WALSH. Lieutenant Bradford, will you proceed with your testimony? I think at the close you were referring to a letter which had been sent to the Naval Committee in explanation of my resolution, and explaining what your attitude was toward the examinations. That letter has not been put in the record, and I want it to go into the record in connection with your explanation.

Lieutenant BRADFORD. The latter part of this letter, the next to the last paragraph, reads:

"The duties performed by the great majority of all the temporary officers of the Navy and of the Naval Reserve Force from the time of their first being commissioned were confined to but one branch of the general duties of a line officer. Some performed deck duties only, some engineering only, etc. In addition, some of these officers did their service only on battleships, others on destroyers, still others on auxiliaries or ashore. All, however, were required to take the full examination."

There is quite a point made in that in order to receive a commission as a line officer in the Navy, you must be familiar with all lines of duties. It seems to me that that works both ways. If the aviation personnel is required to be so thoroughly familiar with all the line duties aboard ship, why are not the line officers of the Navy required to have a thorough knowledge of aviation? They are not. It works only one way. Looking at it from their side, they are not examined in aeronautics to any extent—I mean, that would show any thorough knowledge of aeronautics.

Senator WALSH. Let me ask one question there. Every person that takes the examination, I suppose, was examined on navigation; is that correct?

Lieutenant BRADFORD. The members of class 5, which is aviation, were allowed to substitute aeronautics for any one of the eight subjects.

Senator WALSH. Could you be relieved from examination in general navigation?

Lieutenant BRADFORD. You could. It was only one of a number of subjects; but if you were relieved of the examination in navigation, you still had to take seamanship, gunnery and ordnance, engineering—

Senator WALSH (interposing). But you could be relieved of navigation?

Lieutenant BRADFORD. You had your choice of substituting aeronautics for any one of these subjects.

Senator WALSH. How many of the subjects were foreign to the service that you had had in the Flying Corps?

Lieutenant BRADFORD. I will take the subjects. Navy regulations—

Senator WALSH (interposing). Mr. Chairman, I think it also appeared without dispute yesterday that all the questions except the aviation questions were drafted by men who were regular line officers in the Navy and who had not had any aviation experience. I think that appeared yesterday.

Lieutenant BRADFORD. Shall I state the experience I have had in regard to these different subjects?

Senator WALSH. If you please.

Lieutenant BRADFORD. Navy regulations: Well, an aviation officer should know certain parts of the Navy regulations, but it is not necessary, in order to be an aviator, to thoroughly know all the Navy regulations. Many of the questions were similar to this: "How many salutes are fired when a vice admiral of the British Navy passes?" There were lots and lots of things of that order that you would come in contact with on board ship that you never would probably in your duties on shore in connection with aviation—any number of things. We were asked question after question that it was not necessary for you to know in order to be a good officer in aviation. Our work in aviation is not drill; it is not to prepare for functions, for receiving people, like officers on a quarter-deck would. We are working with our hands. We are following the regulations which pertain to the enlisted personnel, and also our own conduct on these stations.

Navigation: The navigation examination did not pretend to pertain to aeronautics. There is quite a difference between aerial navigation and navigation which applies to surface craft.

Seamanship: We have practically no necessity for seamanship in aviation.

Ordnance and gunnery: We have no turrets or anything like that on aviation stations that I know of or on our aircraft; no large guns.

Engineering: We have no steam turbines, no steam engines of any sort.

The CHAIRMAN. Would not gunnery be connected with aviation, and will it not be in the future?

Lieutenant BRADFORD. Gunnery was included in the aeronautics examination: that is, the gunnery connected with aeronautics. This other was an examination in ordnance and gunnery as it pertains to the regular Navy, or to large ships.

The CHAIRMAN. The gunnery questions pertaining to aviation, or aeronautics, were in the aeronautics paper?

Lieutenant BRADFORD. Yes.

The CHAIRMAN. And this examination as to gunnery and ordnance was separate?

Lieutenant BRADFORD. Yes.

Engineering: The bureau was until recently called the Bureau of Steam Engineering, showing it did not mean gas engines. In the examination on aeronautics we went into the engineering part, which is connected with aeronautics.

Senator WALSH. Let me ask you this: A man who had had experience at sea in gunnery, and engineering at sea, might fail on the questions in gunnery or engineering in aeronautics?

Lieutenant BRADFORD. Oh, yes; of course.

Senator WALSH. What difference is there between the two?

Lieutenant BRADFORD. In one case you are dealing with large guns. The arrangement of the installation of your guns is so entirely different. For instance, take a large caliber gun on board a battleship (although I have never been on board a ship to examine it closely), as to the arrangement of the turrets, how they run on tracks, I believe, and things of that sort.

The CHAIRMAN. Is it not possible that navigation, steam engineering, and those things, will come in in the future of aviation? You will have large airplane carriers. The people who man those airplane carriers may get separated from your line, and I can easily see reasons why you might be required to have a knowledge of those things in the future. It is not like just taking an airplane and going out, but it is part of the flying fleet; it will be in the future.

Lieutenant BRADFORD. We admit all that. Of course, we can not have too much knowledge on all subjects, as far as that goes. But there was no real opportunity afforded us to prepare ourselves for them.

The CHAIRMAN. I agree to that.

Lieutenant BRADFORD. There was no opportunity for us to become familiar with those things.

The CHAIRMAN. But it seems to me that in the future all that is going to be required. I think you should have had schools and been taught all this, and I think it is going to be necessary in the future that you do become familiar with all those.

Lieutenant BRADFORD. As to our preparation for these examinations, you could draw a comparison by saying that we might just as well have been given books on medicine, to study such things, and then be required to operate on a patient, never having done any operating work at all. It is the same thing.

Senator WALSH. Only what you got from textbooks?

Lieutenant BRADFORD. Only what we got from textbooks. It could have been arranged so that the people in class 5 could have been put aboard ship for a certain length of time and trained and instructed.

Senator WALSH. In fact, since this examination, and your protest, your complaints, that you were not given a chance, they have begun to send you to sea—to sent those that passed, is that not true?

Lieutenant BRADFORD. Twenty-seven passed and 152 were taken in. These men who were taken in and supposed to be qualified as line officers in the Navy, are now about to be sent to sea to learn these duties, after it is all over, after they have taken the examination, and were apparently considered satisfactory. They are now at this time, instead of before the examination, to go to sea to be instructed in the various duties of a line officer.

Electricity, military law, and international law, were the other subjects. What applies to one applies to all.

The CHAIRMAN. What opportunity was given you to equip yourselves for this examination? Of course, I expect it was thrashed out yesterday.

Senator WALSH. Yes, Mr. Chairman; it was.

The CHAIRMAN. But I have not it clearly in mind. As I understand, you were given practically a year's notice from the department and were supposed to be given time to attend those schools which I understand were established.

Lieutenant BRADFORD. Only with textbooks.

The CHAIRMAN. I understand these schools were established practically at every port, a school of instruction. Is that correct?

Lieutenant BRADFORD. I could not say where all the schools were established. I take it there were sufficient schools.

The CHAIRMAN. What opportunity was given an aviator to study navigation, to study steam engineering, and to study all these other matters, which I can easily see in the future have got to be a part of your equipment, to become an aviator of the Navy?

Lieutenant BRADFORD. We still went on with our daily work and had our daily duties. There was no release from duty. There were classes of instruction.

The CHAIRMAN. How many hours were your daily duties?

Lieutenant BRADFORD. Our daily duties are from 8.30 in the morning until 4.30 in the afternoon, at my particular station.

The CHAIRMAN. You could have from 4.30, then, to 8 or 9 to attend the schools? What time were these schools of instruction going on?

Lieutenant BRADFORD. The schools I think ran from 3 to 5 in the afternoon, at Hampton Roads.

Captain WILLIAMS. I have here a memorandum as to the complete instruction at Hampton Roads.

Senator WALSH. I asked for that yesterday. I asked them to furnish me what schools were established.

Captain WILLIAMS. The schools were held from 3.30 to 6 p. m.

Senator WALSH. Lieutenant Prell testified to being given one week before examination.

The CHAIRMAN. As I understood him, he was given one week's leave entirely. Of course, they would have these hours in the afternoon to equip themselves.

Senator WALSH. Were you given any leave at all?

Lieutenant BRADFORD. Oh, yes; a week before the examinations were held.

Captain WILLIAMS. I would like to say that there is here in Washington the executive officer on that station at the time of which we speak, and he is available if the committee wants him. This [indicating] is a memorandum of the instruction that was given. It states that the officers desiring to attend were relieved from whatever duties they may have been assigned to during that period; that is, from 3.30 to 6 o'clock in the afternoon, and that the periods were: Monday, navigation; Wednesday, ordnance and seamanship, alternating with law and regulations; Friday, steam engineering, alternating with electricity; and that these classes started on October 13, 1920, eight months before the examination was held.

Senator WALSH. And continued until when?

Captain WILLIAMS. Continued until the examinations.

The CHAIRMAN. We must all deplore conditions where the best aviators we have are being eliminated from the Navy.

Senator WALSH. It is very sad, I think.

The CHAIRMAN. It is very unfortunate, there is no question about that. What there can be done is what we want to find out.

Senator WALSH. Apparently it was a misunderstanding, to put it mildly, because every one of these men will testify they never would have stayed in the service—this man is going to testify now about a position he had offered to him.

The CHAIRMAN. I am inclined to think, Senator, that if they were given those instructions for eight months before the examination, and relieved from duty from 3.30 to 6, wherever they were, to attend the school, that they should have availed themselves of that opportunity.

Senator WALSH. They did. Some of these boys worked faithfully and hard. Some of them came to see me after the examination, and they were wilted from the days and nights they had devoted to preparation.

Captain WILLIAMS. Let me contribute the fact that at San Diego 63 per cent passed, and at Pensacola 57 per cent passed.

Lieutenant BRADFORD. Following up the suggestion, if the Senators please, about staying in the service, I would like to say that at the beginning of the war I had an exceedingly good position. I was so fixed at the time, having a grandmother, a mother, and sister who were entirely dependent on me, that I would have been free from any draft. I took this matter up with the firm, a very wealthy firm, and they paid my salary during the war, less what I received from the Navy. They held open my position for me during the whole war and for some time after the war, and asked me whether I would come back and take it.

Senator WALSH. Why did you not go back?

Lieutenant BRADFORD. I did not go back because I had devoted all these years to aviation. I had apparently been successful in aviation; the reports from my commanding officers showed that. In my talks with them, most of them persuaded me to stay in. Naturally those are the best years of your life.

Senator WALSH. Had you known that this kind of examination was to be given you, and you had to be a navigator at sea as well as an aviator, would you have stayed in the service?

Lieutenant BRADFORD. Absolutely not, unless I had been sure that I would be properly instructed in the things about which I was to be examined. I go out of the Navy as a failure, not competent to hold down a position of two stripes in the Navy, and starting over again in civil life.

Senator WALSH. At what age, now?

Lieutenant BRADFORD. At 34.

Senator WALSH. How long have you been supporting your grandmother, your mother, and your sister?

Lieutenant BRADFORD. I finished up in high school when I was 14 years old and have been working ever since.

Senator WALSH. Some of your salary now goes to them?

Lieutenant BRADFORD. Yes.

The CHAIRMAN. How many are there in a condition similar to yours?

Lieutenant BRADFORD. There are plenty. I could not tell you how many in figures.

The CHAIRMAN. How many were admitted to the examination?

Captain WILLIAMS. I think I can give you the whole data.

Mr. SCHUYLER. One thousand six hundred and fifty-one took the examination.

The CHAIRMAN. How many aviators?

Lieutenant BRADFORD. Two hundred and forty-four.

The CHAIRMAN. How many were admitted?

Senator WALSH. We do not know. There were 152 both temporary and reserve; but we do not know how many reserve.

The CHAIRMAN. And probably there are about 140 or 150, something like that, who failed.

Lieutenant BRADFORD. Let me state right now that on these stations a number of those who have passed were men who had shown so little officer-like qualities that their duties amounted practically to nothing, and they had all of their time that they could spend in their rooms, as their duties were so slight on the station. Many passed just due to that one fact.

Senator WALSH. And the majority of the officers who had the responsibility of their stations failed?

Lieutenant BRADFORD. They did; yes, sir; they were busy.

Senator WALSH. Tell the chairman of the number of men in the Flying Corps whose duty it was to train the men and make them aviators who failed in these examinations.

Lieutenant BRADFORD. The greater number of them failed.

Senator WALSH. Just how many?

Lieutenant BRADFORD. I think one of the instructors at Pensacola, which is a large training station, was the only one that passed.

Senator WALSH. One out of how many?

Lieutenant BRADFORD. I could not say how many, but a number. They were busy. You are busy every day.

The CHAIRMAN. I appreciate the point that time was taken up, and their mind was thoroughly occupied with their work, while the men who had less responsible positions could devote all their time and energy to their school.

Lieutenant BRADFORD. They believed they were efficient officers and their services would certainly be appreciated by the Government.

The CHAIRMAN. You have first the condition you have stated. Then you have the other condition, that for the good of the Navy a man who goes in aviation, as a part of this Navy, must know practically everything that a man in any other department knows.

Senator WALSH. We are going into that. We do not go quite as far as that.

The CHAIRMAN. The situation is one that seems to me unjust to you people who had your time taken up in actual work. It is very much like the case we had in the United States Senate a short time ago, a friend of ours. It appeals to me just the same way.

Captain WILLIAMS. Here is a letter from the Director of Aviation, July 21, 1919, which will give some bearing on that:

(The letter referred to is here printed in full as follows:)

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, D. C., July 21, 1919.

From: Director of naval aviation.

To: Commanding officers all naval air stations and naval aviation detachments.

Subject: Instruction of officers.

1. Owing to the temporary shortage of enlisted personnel assigned to naval aviation, there will be a period of comparative inactivity at naval air stations and aviation detachments. This will be an excellent opportunity for aviation officers to acquire knowledge of naval aviation and of the Navy in general.

2. It is directed that all commanding officers inaugurate courses of instruction in the various subjects pertaining to the Navy and naval aviation. In outlining these courses, commanding officers will keep in mind the fact that

class 5 naval reserve officers who will probably transfer to the regular Navy when necessary legislation is passed will, at some future date, be required to qualify for line duties, or at least to possess a good general knowledge of the Navy and the duties of a naval officer. Therefore, it is desired that full advantage be taken of this period of inactivity to give these officers as much instruction as possible along lines that will be beneficial to them in their career in the Navy. This will also offer the commanding officer a very good opportunity to judge the energy, interest, and capabilities of the officers under their command, and to form an idea of their relative qualifications. Commanding officers will keep this in mind and will report results of the instruction and their estimates of the relative ability of the officers under their command.

3. It is directed that these courses be outlined and the instruction commence at the earliest practicable date. Submit to this office a complete outline of the courses of instruction that will be given.

T. T. CRAVEN.

Lieutenant BRADFORD. I do not remember ever seeing or hearing of that letter. It may have slipped my memory, it might have been brought to my attention, but I have no recollection of it. If they knew at that time we were to be examined in these various subjects, why did not they take the officers in aviation and give them six months' training on board a battleship at sea?

Senator WALSH. What is the reason?

Captain WILLIAMS. At the time of which I speak, from then up to the time of the passage of the act of June 4, 1920, the discussion of whether there should be a separate aviation corps for the Army and Navy, a separate aviation corps for the Army and a separate aviation corps for the Navy, was extremely active throughout this country. It was active in Congress; it was active perhaps throughout the world. The policy of holding this examination by which these reserve officers could be taken into the regular Navy was developed at or about the time of the passage of this act, June 4, 1920.

Senator WALSH. Was it not known from the outset, Captain, that there was going to be, in some way, under some law, a number of these men in the flying corps taken into the regular Navy?

Captain WILLIAMS. That seemed to be the inevitable consequence, but it was before that the ruling idea in the minds of many men that there would be a single aviation corps. Congress decided otherwise on June 4, 1920, and we postponed the examination until the following May.

Senator WALSH. What are you going to say to the proposition if these young men who know aviation as experts must know the general duties and business of the Navy? What are you going to say as to Navy officers knowing the general duties and the business of aviators? Developing that point, I want to ask you if during the time you have been in service there has been at any time at the head of the aviation bureau a man who knew aviation?

Lieutenant BRADFORD. I think all the heads were brought in right from line duties which had nothing to do—nothing at all—with any aviation service.

Senator WALSH. Is the man who is now at the head of the Bureau of Aeronautics a trained or experienced aviator?

Lieutenant BRADFORD. He is not, to my knowledge.

Senator WALSH. Does he know anything at all about aviation, so far as you know?

Lieutenant BRADFORD. I can not say.

Senator KEYES. Who is the man at the head of the bureau?

Lieutenant BRADFORD. Admiral Moffett. I can repeat the words of one of the directors of Navy aviation, Captain Craven, at the time he relieved Captain Erwin, who had been director of naval aviation. He gathered together the heads of the departments in his office, and on taking over his duties (I think I can almost repeat his words) he said: "Gentlemen, from now on there will be no aviation other than to supply the needs of the fleet. Further than that there will be no aviation," showing that the main intent of all line officers is to keep the development of aviation right under their fingers. They have built for themselves something which they are afraid will devour their positions. Anybody who saw the sinking of the *Ostfriesland*—I happened to be right over it at the time.

Senator WALSH. In the air?

Lieutenant BRADFORD. In the air, in a plane. When you saw those bombs drop alongside of that ship, those same planes could have sunk the *Pennsylvania* and any other battleships that were there.

The CHAIRMAN. Do you not think that is in a measure correct, that so far as naval aviation is concerned it will be a part of the fleet? When you come to land aviation, that is a different proposition. I am just talking offhand. I do not know, but the way I see it for the future is that to a very great extent the naval branch of aviation in the future will be as a part of the fleet.

Lieutenant BRADFORD. I will tell you what my opinion is, if you care to have it. My opinion is that the fleet is almost a thing of the past; that the fleet may be a part of aviation, but not aviation a part of the fleet.

The CHAIRMAN. I do not agree with you.

Lieutenant BRADFORD. If you will take a little time off and get out on some of these bombing cruises you will be impressed.

The CHAIRMAN. That is all right. I witnessed the bombing. You were bombing there under the most auspicious circumstances. You were permitted to fly where you pleased, but suppose that that fleet was equipped with airplanes and with its proper guns.

Lieutenant BRADFORD. The airplanes would assist them but their guns would not.

The CHAIRMAN. I know, but you would have your own airplanes to fight those airplanes off, and they would never get over your fleet to drop the bombs, not if your airplane fleet was properly equipped.

Lieutenant BRADFORD. In that case you are using the fleet to carry the airplanes. What use is the fleet?

The CHAIRMAN. The fleet will still have its position in warfare in the future. The battleship will still stand as the unit, in my judgment.

Lieutenant BRADFORD. I can not see it, sir. I am sorry I can not agree with you.

The CHAIRMAN. I believe the airplane is going to be a valuable part of the fleet, that naval aviation will be with the fleet. You can term it as you please, the battleship with the airplane or the airplane with the battleship, if you want to. But that is where the interest and where the development of the Navy is going to be, with that fleet.

Captain WILLIAMS. This is the subject of study of. I was going to say, a million men in this world; certainly 500,000. Slowly and surely the best practice will come out of experiment, experience, and a study of special conditions. Our airplane problems, our battleship problems, depend on who we are going to fight. Are we going to fight 500 miles from shore or are we going 6,000 miles from shore? I can not conceive that the airplane would be of much use 6,000 miles from base, without a heavily armored ship was to be used. On the other hand, I can imagine an airplane as a secondary weapon in connection with the battleship, in searching for submarines and for enemy planes. The way we are heading now, I think we will be 6,000 miles from port if we are anywhere.

The CHAIRMAN. Our time is getting short, and I would suggest that you devote the next 20 minutes to developing your testimony.

Senator WALSH. Will you state, since you have been in the service, what men who have no training have been at the head of the flying corps?

Lieutenant BRADFORD. The heads have been men who have had no experience in aviation, and they have directed the policy of aviation.

Senator WALSH. Are there men who are in the Regular Navy, academy graduates, who are high-class experts in the flying corps that could be designated as the head of the bureau of aeronautics?

Lieutenant BRADFORD. It would be only a matter of rank, I imagine, that would keep them out, not a matter of ability.

Senator WALSH. There are such men, but their rank would not justify their being appointed; is that it?

Lieutenant BRADFORD. That is it.

Senator WALSH. Under the system that now prevails?

Lieutenant BRADFORD. How can you get an efficient aviation officer if you are going to yank a man out of aviation and give him sea duty, say, for two years, putting him back in aviation for a short period, and then to sea again? You have got neither one nor the other. You have got men, officers of the Regular Navy, most capable men, who have been in naval aviation for years. They are taken out and have to go back to sea, on duty, and then are brought back again to aviation. How can they keep up with the times by doing that?

Senator WALSH. Especially in a science that is developing so rapidly.

Lieutenant BRADFORD. If you do not have aviation duty only, you will never have any aviation; that is my opinion.

Senator WALSH. You say it is incongruous to expect a man to be on a battleship and then put on an airplane?

Lieutenant BRADFORD. Exactly. You can not do those two things.

Senator WALSH. Will you proceed with some of the other points you want to bring out?

Lieutenant BRADFORD. The last paragraph of this letter reads:

"It would be an added and totally unwarranted burden upon the Treasury if officers were to be commissioned in the line of the Navy who were not qualified to perform all the duties of the line in which commissioned."

Even though the ones now holding commissions are not qualified to perform all the duties of the line, they are required to be qualified in. How many of them know aviation?

Senator WALSH. In other words, you are arguing they require you to do something that they themselves are not doing?

Lieutenant BRADFORD. Yes. The letter continues:

"Aside from the firmly established conviction and policy of the department that a line officer must be qualified for all the duties, engineering duties, deck duties, gunnery duties, submarine duties, or industrial or administrative duties on shore, it is important to remember that when an aviator becomes superannuated for actual flying, there will shortly be no need for his services in the administrative or ground work of the aviation forces, and he must then be assigned to regular line duties or become a pensioner upon the Government."

How can you contend that after a man reaches a certain age he is unfitted for aviation duties? The commanding officer on our large aircraft does not do actual piloting. On the trans-Atlantic flight of the NC-4 I think it is very doubtful whether Commander Reed touched the controllers on that flight. Of course, that does not detract from the credit for making the flight. It was due to his experience and good judgment and his knowledge of aviation that such a flight was possible. On any airship the commanding officer is not required to touch the controls. You undergo no more hardships in large aircraft than you would on a battleship. The administrative and executive ends of aviation should certainly not be administered by officers unfamiliar with the very subject which they are directing.

Senator WALSH. Commanders of stations.

Lieutenant BRADFORD. The commanding officers of stations.

Senator WALSH. Do they fly?

Lieutenant BRADFORD. They have got some men and they are training others. They have experienced aviation personnel officers. Why are not these men put in aviation and left there to develop it? Instead of that, they are yanked out from time to time.

Senator WALSH. Is there a feeling among the men in the Flying Corps that they have not been given sympathetic cooperation by the regular Navy line officers—I mean to the extent of not appreciating the importance of aviation as a part of the new development.

Lieutenant BRADFORD. Yes; I think there is. I think there is a certain feeling against aviation on the part of these line officers, the majority of them, with other duties.

Senator WALSH. Who have raised and developed naval aviation to the extent it now is?

Lieutenant BRADFORD. A few officers of the regular Navy who were in naval aviation when it started. It really started at the time the war broke out, you might say. They, of course, were experimenting, but even some of those men, who risked their lives in planes which you might say were unfit for flying, were taken out and sent to sea. Naval aviation with very few exceptions was left entirely to the reserves to bring it to its present stage, and they with their knowledge are now being thrown out.

Senator WALSH. Since the war what class of men have you been training, have the reserves been training, for officers in aviation?

Lieutenant BRADFORD. You might say they have been rushing through certain lieutenant commanders and lieutenants to replace these people that they no longer have any use for.

Senator WALSH. Are the lieutenant commanders now young men whom you folks have trained?

Lieutenant BRADFORD. Personally I did no training except during the war, but other men have. They have to be trained.

Senator WALSH. All of the men who have been trained since the war have been academy graduates?

Lieutenant BRADFORD. I think so.

Senator WALSH. Is there a feeling that you men have been kept in the service up to this time and these examinations held back for the purpose of making use of your experience, which you got during the war, to train academy graduates to take your place?

Lieutenant BRADFORD. Why, when certain men failed, were they not put out then, instead of being kept on until the present time? Since I have failed, and it has been set forth in the record there—a very signal failure, failing in many subjects—I was brought to the department, as I have said before, in connection with writing a manual. This manual is to be used to direct the operation and maintenance of aircraft.

Senator WALSH. I have some information here for the record that I will ask you to read, concerning some of the most valued and experienced aviators that are being lost to the service as a result of this examination.

Lieutenant BRADFORD. Do you want me to read this?

Senator WALSH. Yes.

Lieutenant BRADFORD (reading):

"Lieut. Commander J. Hawkins, United States Naval Reserve Force, 5. During the war, owing to exceptional ability both as executive and pilot, he was promoted to his present rank. He was not considered qualified for even the rank of ensign in the permanent Navy."

Senator WALSH. That man reached the rank of lieutenant commander and yet is found not to be qualified for the rank of ensign.

Lieutenant BRADFORD. If you question the officers in the Bureau of Aeronautics now, they will confirm my statement that many of these men possess exceptional ability in aeronautics. [Reading:]

Lieutenant Commander Havlin (or Haviland), United States Naval Reserve Force, 5. Same.

Lieut. A. O. Preil, United States Naval Reserve Force, 5. During the war he was commander of one of the most important squadrons (Squadron V) at Pensacola, and has been for the past year or more the right-hand man of Lieut. Commander H. T. Bartlett, United States Navy, commander of torpedo planes, Atlantic Fleet."

Senator WALSH. Is he an aviator?

Lieutenant BRADFORD. He is one of the original aviators. Men like Lieutenant Commander Bartlett are getting their promotions held up, yet they are doing the most important work in the Navy Department in aeronautics.

Senator WALSH. Because they have not had so many years at sea?

Lieutenant BRADFORD. Yes.

Captain WILLIAMS. Is not that the law?

Senator WALSH. It ought to be changed if it is.

The CHAIRMAN. There is no requirement for sea service in the lower ranks.

Senator WALSH. Is a lieutenant commander one of the lower ranks?

Mr. SCHUYLER. Yes, sir.

Lieutenant BRADFORD (reading):

"Lieut. Fred. Gage, United States Naval Reserve Force, 5. Former commander of a squadron at Pensacola.

"Lieut. W. C. Bryan, United States Naval Reserve Force, 5. During the latter part of the war he was gunnery officer at Pensacola and has held numerous important positions since that time.

"Lieut. H. B. Leggatt, United States Naval Reserve Force, 5. His brother, John Leggatt, of Lowell, Mass., is a judge. Lieutenant Leggatt has been a pilot and instructor since some time in 1918.

"Lieut. William Miller, United States Naval Reserve Force, 5. A torpedo plane pilot of considerable ability, trained at Pensacola at considerable expense for such duty."

You want this to go in the record?

Senator WALSH. Yes.

Lieutenant BRADFORD. It is not being given as quoted by me, is it?

Senator WALSH. No.

Lieutenant BRADFORD (reading):

"Lieut. William Reed, Jr., United States Naval Reserve Force, 6. Probably the best aerologist in the Navy at present. Recently transferred to the Bureau of Aeronautics in Washington on account of his exceptional ability. He states that his examination papers were not even marked nor looked at for the reason that he is close to 40 years old. Yet he was allowed to take dirigible training last year at considerable expense. One of America's greatest free balloon pilots.

"Commander Stapler, United States Navy, Bureau of Navigation. He it is who stated that the marks had been raised after the first marking, since only some ninety-odd passed on first marking. The official 'buck' passer."

Senator KEYES. What is this, Senator?

Senator WALSH. It is a memorandum which the boys prepared. I asked them to make me up a list of some of the most conspicuous men that are being lost.

Is it a fact, Lieutenant, that to your knowledge some of these young men who passed the examination and were given rank of ensign, being reduced from lieutenant to senior grade, have already resigned and left the Navy?

Lieutenant BRADFORD. Oh, yes.

Senator WALSH. Is it a fact further that some that are remaining in the service are intending to give notice that they are going to resign?

Lieutenant BRADFORD. I think it is the intention of some who accepted commissions, that they accepted them merely to tide themselves over until they were able to find some other position on the outside.

Senator WALSH. To see what the result of these hearings might be.

Lieutenant BRADFORD. Of course, these hearings have a most important bearing on their future.

Senator WALSH. Are there any other facts that you want to develop?

Lieutenant BRADFORD. No; I think we have made it very plain as to the lack of preparation afforded candidates for this examination, and no particular interest taken or preparation made by the department.

Senator WALSH. Do you want to ask any questions, Captain?

Captain WILLIAMS. Only one, Senator. Were you aware that a school was being held or was started in October, 1920, at the station at which you were serving, for preparation for examinations to be held in May, 1921?

Lieutenant BRADFORD. I was.

Captain WILLIAMS. Why did you not attend it?

Lieutenant BRADFORD. Practically all of the officers of my division were men who were going to take the examination. Rather than go away and leave the yeoman there in charge of the office, I stayed there and did my work, tried to be an efficient officer and take care of my present duties, not looking very far ahead. I should have been farsighted and dropped everything. But I believed that a man with the good record I had would have it considered, even though he had a slight knowledge of actual line duties aboard ship.

I stated my reason in my testimony before that I stayed there because when the commanding officer calls up to find out any information relative to the running of the division, I wanted somebody to be there who was competent to give him a proper reply.

When they say we were relieved of our duties, nobody else was put in our place.

Senator WALSH. Who would be in your place if you left?

Lieutenant BRADFORD. Nobody.

Captain WILLIAMS. Did you take the examination?

Lieutenant BRADFORD. I did. I would like to bring up another point. There were a number of officers with the Atlantic Fleet at the time. These boys were busy all the time. I do not know whether they were afforded any opportunity to attend classes or not; I think not. Rather than take the examination and make such a bad showing, they simply let the whole thing slide by. Their services are of such value that they are now on active duty, although they have never taken examinations.

Captain WILLIAMS. I am talking about you. What was your position at the naval flying station at Hampton Station?

Lieutenant BRADFORD. At that time?

Captain WILLIAMS. From October.

Lieutenant BRADFORD. I was in charge of the lighter-than-air department there.

Captain WILLIAMS. In charge of it?

Lieutenant BRADFORD. Yes, sir.

Captain WILLIAMS. And you had other men under you?

Lieutenant BRADFORD. Other reserve officers.

Captain WILLIAMS. Who were largely dependent on you, on your performance of the duties, on your intelligence, on you initiative, etc.?

Lieutenant BRADFORD. Many times; yes, sir.

Captain WILLIAMS. You were familiar, then, with the Navy Regulations?

Lieutenant BRADFORD. I was familiar enough with Navy Regulations to get good fitness reports and be commended as a good officer, and to carry on my duties properly.

Captain WILLIAMS. What is your opinion of a single flying corps in the Navy? Do you think there should be one?

Lieutenant BRADFORD. I think there should be a corps in the Navy for aviation duty only.

Captain WILLIAMS. That is all I want.

Senator WALSH. Did you have books which you studied, and give time to study, in preparation for your examination?

Lieutenant BRADFORD. I had books which I studied; yes, sir.

Senator WALSH. Did you seek to prepare yourself to pass the examination?

Lieutenant BRADFORD. I did, at nights.

Senator WALSH. By private study?

Lieutenant BRADFORD. Yes.

Senator WALSH. For how long did you study?

Lieutenant BRADFORD. I really don't know. We would get together there, several of us.

Senator WALSH. Did the men get together for hours and days and really plug at this thing?

Lieutenant BRADFORD. Yes; but there were so many technical things that would come up that you could not dope out for yourself.

Senator WALSH. Did you give the time to it? Did you try to prepare for it?

Lieutenant BRADFORD. Yes.

The CHAIRMAN. We will have to adjourn at this point. Shall it be until Monday at 10 o'clock?

Senator WALSH. Yes. Then I shall have to ask for a suspension for two or three days.

(Thereupon at 12 o'clock noon, the subcommittee adjourned to Monday, April 10, 1922, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

MONDAY, APRIL 10, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 o'clock a. m. in the committee room, Capitol, Senator L. Heisler Ball presiding.

Present: Senators Ball (chairman), Keyes, and Gerry.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order. Senator Walsh, whom do you desire to call now?

Senator WALSH of Massachusetts. Mr. Chairman, I would like to call Lieutenant Commander Haviland.

TESTIMONY OF LIEUT. WILLIS B. HAVILAND, UNITED STATES NAVAL RESERVE FORCE.

Senator WALSH of Massachusetts. What is your present rank?

Lieutenant HAVILAND. Lieutenant commander, class 6, Reserve Corps.

Senator WALSH. Where are you stationed at the present time?

Lieutenant HAVILAND. At the present time I am stationed at the naval air station, Anacostia.

Senator WALSH. In what capacity?

Lieutenant HAVILAND. Carrying out the duties of executive officer.

Senator WALSH. And your rank is still that of lieutenant commander?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. May I ask your age?

Lieutenant HAVILAND. I was 32 last month—the 10th of March.

Senator WALSH. Where is your home residence?

Lieutenant HAVILAND. St. Paul, Minn.

Senator WALSH. When did you enlist in the Navy?

Lieutenant HAVILAND. I enlisted in the Navy in 1907—before the war.

Senator WALSH. In what capacity and where?

The CHAIRMAN. In 1907, did you say?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. In what capacity?

Lieutenant HAVILAND. Third-class electrician.

Senator WALSH. How old were you then?

Lieutenant HAVILAND. Seventeen.

The CHAIRMAN. Just have him give his whole service.

Senator WALSH. I was just about to go into that, Mr. Chairman. From that time on will you describe to the committee your record of service during the time that you remained in the Navy before the war?

Lieutenant HAVILAND. I had completed an enlisted course of four years in the Navy in 1911 and was discharged with an honorable discharge.

Senator WALSH. When?

Lieutenant HAVILAND. In January, 1911. I remained out of the service until 1917.

Senator WALSH. What were you doing during that period of time?

Lieutenant HAVILAND. For a year I was with the New York, New Haven & Hartford Railroad Co. I had gone to work with them the day after I was

discharged from the Navy in 1911. I later was employed by the American Rotary Valve Co., of Chicago, and remained with them three years, until the spring of 1915, when I left of my own volition and went overseas.

Senator WALSH. That is, 1915 you went overseas; in what capacity?

Lieutenant HAVILAND. I went over as a civilian in my own way.

Senator WALSH. Did you enlist in the war?

Lieutenant HAVILAND. I enlisted in the French Army.

Senator WALSH. When?

Lieutenant HAVILAND. In the fall of 1915.

Senator WALSH. In what capacity did you enlist?

Lieutenant HAVILAND. Second-class soldier in the Second Regiment of the Foreign Legion.

Senator WALSH. Now, step by step tell us of your experience and service in the French Army.

Lieutenant HAVILAND. The Lafayette Escadrille was being formed at that time—

Senator WALSH (interposing). you might describe that.

Lieutenant HAVILAND. It was established by a group of Americans, about 10 of whom were in the French service, and 5 or 6 who were in France but not in the service at the time the escadrille was formed.

The idea of the Lafayette Escadrille was to assemble a group of Americans who wished to engage in flying and to have the distinction of being a separate unit, being known as the American unit, rather than engaging in service in the infantry regiments and being scattered through the Foreign Legion. I will explain that it was impossible at that time to enter the French service in any other regiment than the Foreign Legion. One who was not a citizen of France at that time could not join any French line regiment. The particular thing about the Legion that appealed to Americans was the fact that under the French law you did not forfeit your citizenship.

Senator WALSH. In the country from which you came?

Lieutenant HAVILAND. I am not sure about that, but you did not in France. In France you were known as an American citizen who was voluntarily engaged for the duration of the war. You did not swear allegiance to France. You signed an agreement as volunteer to give your service for the duration of the war. You took no oath, and in that case you did not lose your citizenship, which may have been English or Swedish, or anything else. I am under the impression that the United States recognized that Americans in the French Foreign Legion retained their citizenship; at least you were carried as an American citizen in the citations, or in any special letters of commendation that you received, you were also specifically mentioned as an American citizen but engaged as a volunteer in the French service. That is not true with the English or other services, where you had to swear allegiance to the king or the monarch.

Senator WALSH. Now will you proceed and describe the details of your experiences and your duties?

Lieutenant HAVILAND. I was sent to the aviation center at Pau for instructions.

Senator WALSH. Do you remember that date?

Lieutenant HAVILAND. About the 1st of January, 1916. I had been in the depot some two months—the depot of the Second Legion, which was at Dijon. I completed my training and took my pilot's brevet.

Senator WALSH. What does that correspond to in English?

Lieutenant HAVILAND. It is the same as the designation of naval aviator, of course, the prescribed course that you complete, the tests that you accomplish to receive your certificate as pilot.

At that time the French began to realize that we were sending pilots to France without sufficient experience; they were losing too many in the first month or so of their time at the front, which led to the conclusion that they were insufficiently trained. Some pilots had gone to the front with 17 hours' flying, which was on account of war pressure and necessity. But they were losing too many, and they swung to the other extreme and lengthened the course in aerial gunnery, practical acrobatic courses, air acrobatics, to make one proficient in handling planes—the type of plane we were going to fly at the front—and then they had combat schools in which operations on the front were simulated. Part of that course meant the guarding of photographic planes, that you might have to do on the front, being attacked by enemy planes, and other exercises that represented the enemy in an attack on those formations. In place of actual firing you had to carry guns, which showed whether or not if you had been

firing a machine gun you would have hit what you were firing at; whether you were in the defending plane or the attacking plane.

The Lafayette Escadrille that was formed and sent to the Somme in September to engage in or to take part in the first battle of the Somme, I joined when they moved to the Somme the same year. We went through the battle of the Somme and moved to Montdidier, where the English extended their line during the winter. Montdidier is to the right of the English right, and some 50 miles from Peronne, which we had been too. The escadrille went through the retreat in March, 1917, when the German Hindenberg line gave way, we taking part daily in those operations.

Senator WALSH. You yourself took part in those operations?

Lieutenant HAVILAND. Yes, sir; I was with the escadrille at that time, and all of this time that I mention. I did not leave the front after going there. The escadrille, as the line went back, was established at Ham, which is about 10 miles from San Quentin. The line ended at San Quentin; the German line ran through that city, which they held. That was the farthest back that they retreated, about 40 miles. We stayed at Ham about three months, until that sector became quiet. I intended to mention one thing, that the Lafayette Escadrille was part of the combat group. We only went into attack. The combat troops were shock, and moved as soon as the sector became quiet to a place in a new sector where combat was to be commenced. As the line quieted down it was held by the ordinary line regiments that were not considered as being shock troops, or troops of sufficient military value to throw into an attack.

The first part of July the Lafayette Escadrille moved to Dunkirk in Flanders, to take part in the attack to straighten out the Ypres salient. The attack failed, due to bad weather and a great deal of rain, the condition of the ground being such that the troops could not move. We could not move the trains; they stopped, and their tanks mired, and the attack fizzled out. It was not a success at that time, but we later straightened out the salient.

The French had contemplated a counter attack at Verdun. They made ground that they had lost in 1916 in the first German attack, and as the movement to Flanders was practically a stalemate, due to weather and other conditions, we left Flanders in the first week of August for Verdun. The counter attack at Verdun on the 27th of August, or the 22d or 23d of August, 1917, lasted about three days. At the end of the three days the French gained all the ground that they had held, and they resisted the counter attacks for about 10 days more—the German counter attack. But they managed to hold what they had taken, practically. The Lafayette Escadrille took part in that entire operation. There were daily patrols and bombing and trench strafing and keeping up the pursuit of planes.

In September I was anxious to go back to Flanders. At that time I had in my mind a commission in the Navy, and I wanted to go to Dunkirk. I wanted to know more about that aerial, so I got permission to join the French photograph squadron attached to the First Army that was in position in the line between Dixmude and Ypres. This section that I joined took all the back area photographs for the French First Army. They made all the photographs up to 30 kilometers back of the German lines. I stayed with them two months—October and November—taking part in their daily operations, photographic flights, and combat patrols, and I was then advised that I would be commissioned in the Naval Reserve Force.

Senator WALSH. Up to this time had you maintained the same rank?

Lieutenant HAVILAND. No, sir; I had gone from second-class soldier to corporal, sergeant, and warrant officer, and adjutant, and I was to be sent to the Army in Salonica and receive a commission as second lieutenant in the French Army. I got the commission about the time I transferred to the American forces, and at that time it was not known whether these commissions were going through or not. Everyone during those few months of uncertainty was anxious to get straightened out and to go ahead on that definite line and do what they were doing without sitting on the fence.

Senator WALSH. When did you get transferred to the American forces?

Lieutenant HAVILAND. On the 28th of December, 1917. It took me a month to get out of the French Army.

Senator WALSH. What was the highest rank you got in the French Army?

Lieutenant HAVILAND. Second lieutenant.

Senator WALSH. What was it for; what kind of service?

Lieutenant HAVILAND. Well, it was the French air forces, under the French engineers. The air service at that time belonged to the engineer corps of the

army, but the officers were drawn from all types of service—the cavalry; there were a great many cavalry, because they washed out in the early part of the war.

Any officer, by application that was accorded the transfer, could transfer to aviation and enter the aviation section.

Senator WALSH. Did you get commendations from the French Government up to this time, or was it later that these decorations or commendations came to you?

Lieutenant HAVILAND. I received two citations of the order of the army during this period.

Senator WALSH. State what they were.

Lieutenant HAVILAND. Well, I have copies of them here. Some were for combat.

Senator WALSH. You may at this point introduce all the decorations and commendations that you were given for your services by foreign Governments.

Lieutenant HAVILAND. This [indicating] is the Italian. One is the naval war cross. This [indicating] is the French. The second French citation I have never received a duplicate copy of. It was lost with all my effects by fire on the other side, together with a good many other papers.

Senator WALSH. I notice that two of these are evidently commendations—no, a decoration was sent through our own Secretary of the Navy, Secretary Daniels?

Lieutenant HAVILAND. Also I was decorated in Italy, but that, as is usual, came on a month later.

Senator WALSH. What was the Italian decoration?

Lieutenant HAVILAND. The Italian war cross.

Senator WALSH. What was the reason for your being given this decoration?

Lieutenant HAVILAND. The citation is there.

Senator WALSH. Will you please read it?

Lieutenant HAVILAND (reading):

"The Italian ministry of marine, through its chief of naval aviation, has notified this office of its desire to decorate the following officers for valor and war service according to the citations mentioned. These have been accepted by the commander U. S. N. A. forces in Italy as being permissible under the force commander letter on decorations by foreign governments. Lieut. Willis B. Haviland, U. S. N. R. F., war cross; ardent pilot of a hydroplane; made numerous flights of bombardments, patrols, always demonstrating singular courage and high spirit of duty, and was always an example to his subordinates."

Senator WALSH. What is the date of the Italian citation?

Lieutenant HAVILAND. December 3, 1918. That is the original.

The French is from Franchet d'Esperey, in command of the French Army of the North. Citation of the order of the army. This is in French language: "Willis Haviland, sergeant of the Escadrille N 124"—that was the Lafayette Escadrille.

"American citizen engaged for the duration of the war. Good pilot, courageous, and true. Attacked on the 26th of April an enemy plane. Shot it down behind the first German line."

Senator WALSH. What is the date of that?

Lieutenant HAVILAND. The 17th of May, 1917.

Senator WALSH. Now, the second French decoration was what date?

Lieutenant HAVILAND. That was very much the same thing. In Flanders, on the 2d of October, I forced a German plane to land. We were attacked, and they were shooting down the balloons, and a Frenchman was shot down. I shot down one German—at least, I did not shoot him down, but the plane. I do not believe I hit the pilot, but I riddled his motor, and he had to land. My plane was pretty well riddled, too, and I had to land myself. I was forced down inside of our line. I got a citation of the Order of the Army for that. That is one that was lost with practically all my effects at that time—all except what I had on.

Senator WALSH. Now, you have given the decorations of the foreign countries with these three?

Lieutenant HAVILAND. I was cited for the Legion of Honor—the Italian Legion of Honor in Italy—and got the medal of valor and the Cross of Savoy, but Captain Train, an attaché in the Army, did not permit me to accept it.

Senator WALSH. Were you at any time in charge of the American station in Italy of our forces?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. Now, I want you to cover everything that was done up to the time you went to the American Army.

Lieutenant HAVILAND. This is a letter from my commander in chief at the station in Italy—

Senator WALSH (interposing). What is the date of that?

Lieutenant HAVILAND. October 14, 1918, it states at the top of the letter.

Senator WALSH. Please read that.

Lieutenant HAVILAND (reading):

"During my recent visit to the United States air station, Porto Corsini, I have been able and have been greatly gratified to notice the perfect conditions of the station and of the planes and of the discipline and smartness of the men.

"I am therefore glad to heartily commend Capt. Willis B. Haviland and the officers and enlisted men on the station, who have all, with their spirit of organization and military discipline, brought the station to the highest point of efficiency.

"I particularly hold to congratulate the chief pilot, Lieut. R. B. Read, and with him all the aviators, for their precious work on patrols over the sea and for their splendid operations over Pola on October 7, 1918.

"A copy of this letter has been sent to the United States Aviation Forces, Foreign Service, Rome."

That is signed by Admiral Marzolo.

This is a letter that was sent back in reply to this communication:

"Copy of your letter has been forwarded to the force commander with the request that copies of it be forwarded to the department, to be filed with the records of the two officers concerned, Lieut. W. B. Haviland, U. S. N. R. F., and Lieut. R. B. Read, U. S. N. R. F.

"It was with considerable pleasure that the commander of United States Naval Aviation Forces in Italy read the report from Vice Admiral Marzolo, and he desires to send you his congratulations upon receiving such a token of commendation from the commander in chief, of Venice."

That is signed by Captain Train.

Senator WALSH. How many hours of flying did you have previous to your entering the United States Navy, in December, 1918?

Lieutenant HAVILAND. About 800.

Senator WALSH. Was that December, 1917 or 1918?

Lieutenant HAVILAND. 1917.

Senator WALSH. You said about 800 hours?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. How many of those hours were actual combat—fighting?

Lieut. HAVILAND. Less than half. I suppose 350 to 400—something less than half of the total time was over the line.

Senator WALSH. May I ask you whether, to your knowledge, there is among the reserve officers or regular officers of the Army any man other than yourself who had experience, previous to our entering the war in Europe, in aviation on the other side?

Lieut. HAVILAND. Well, there were no officers in the American service that had any. It was not possible for them to get it.

Senator WALSH. And are there any men like yourself who enlisted in the Army and Navy so that our Government could have the benefit of their experience?

Lieutenant HAVILAND. I do not know whether there are any in the Army at the present time. The entire Lafayette Escadrille was taken into the Army. It was split up. They used the Lafayette pilots to induct them into new units, to bring them along. The escadrille was divided, Thorne at one end of it and — at the other. They both went into the service with the grade of major. Later they were connected with a squadron that was conducting instructions of Army officers, Army pilots, who were inexperienced in the war, game. They later took out several in each squadron and gave them a squadron of their own.

Senator WALSH. How did you happen to go into the Navy?

Lieutenant HAVILAND. I went into the Navy because I knew Commander Kenneth Whiting. I met him before I was in the French Army at Dunkirk, when we were there in July, and the fact that I had been in the Navy before the war, and my associations were with the Navy. That was the size of it and that is what influenced me.

Senator WALSH. Did any other American who had been in the Army enlist in the Navy except yourself?

Lieutenant HAVILAND. They had a good many, and when I say good many they probably had 15. I do not know the exact number, but it can be determined, as it is a matter of record—they had been trained by the French. But to the best of my knowledge none of the others had had experience beyond mine; that is, they had been trained and had reached the point where they were ready to go in the line when they were taken over; in other words, they had started late and had finished their training with the French, in the French service, but had not seen service on the line.

Senator WALSH. Have any of those 15 remained in our service?

Lieutenant HAVILAND. Yes; a man by the name of Coatsworth is one of them.

Senator WALSH. He is one who is in the reserve, a reserve officer; he was a reserve officer in the Navy?

Lieutenant HAVILAND. Yes, sir; he was with the French.

Senator WALSH. And he has been made ensign?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. What rank did he hold previous to being reduced to ensign?

Lieutenant HAVILAND. Lieutenant, senior grade. He had been an ensign and came into the service as reserve ensign and was promoted.

Senator WALSH. What rank were you given when you enlisted in the American Naval Air Service?

Lieutenant HAVILAND. Lieutenant, senior grade, in the Reserve Corps.

Senator WALSH. Will you state now what your experiences have been; what service you have been engaged in, first, abroad?

Lieutenant HAVILAND. Do you desire me to recount my experiences?

Senator WALSH. Yes; recount your experiences.

Lieutenant HAVILAND. Since joining the service?

Senator WALSH. Since December, 1917. I am assuming that you completed, in general, your experiences in the French Army.

Lieutenant HAVILAND. When I was enrolled as lieutenant in the reserve force, class 5, in December, 1917, I was told by Commander Whiting that they wanted to send me home to be used as instructor in flying and perhaps gunnery—airial gunnery. I told him that I did not wish to go home, that I had gone overseas at my own expense and that I wanted to stay by until the show finished up; if I could not stay over there I would stay in the French Army. At that time the only naval station that was contemplated to make contact with the enemy was the station at Dunkirk, France. That was the most advanced air station that the Navy operated. It was not finished then, but was under way; plans were laid to commence operations. From the nature of the position of that station, 22 miles from Neuport, which was held by the Germans, it meant that heavier types of flying boats, carrying bombs for antisubmarine control, would have to be protected with small flying planes. They had found by experience that if they were not protected, their boats did not come back; they lost them, as the Germans were operating land fighting planes some 40 miles off the coast, and they had so much advantage in speed, maneuvering ability, and hitting power with their two-gun planes that these heavily laden boats, which were slow, could not combat them; in case of their encountering them they would be sunk. So it was decided to send me to Dunkirk as chief pilot in charge of patrols and routine flying, with perhaps my special qualification with small machines, to be able to properly provide protection and operate small planes to the greatest advantage, to protect these antisubmarine patrol flying boats.

Senator WALSH. How many men did you have under you? You were pilot, you say?

Lieutenant HAVILAND. We had about 200 enlisted men. They started with a hundred and then got another hundred. You see, the station had to be built. You could not conduct the place with a large number of men because you would have to put only as many men there as could build the house and then prepare housing facilities for others. I mean to say that you could not put a big detachment in there, because they could not exist. We had to start with a small detachment.

Senator WALSH. Who was in command of the station?

Lieutenant HAVILAND. Lieutenant Commander Chevallier; but at that time he was lieutenant.

So it was decided that I was to go to Dunkirk. I went down to Montchic Lacaneau to take my naval aviator's test—as I had to qualify as a naval aviator; I had not flown water machines up to that time—and also to test

some small pontoon planes and supervise the instruction of two or three pilots in this type of plane. These pilots were going to Dunkirk with two smaller aerial planes.

That took about a month—the month of January. I then went to Dunkirk and took over my duties as chief pilot of the station. The problem at Dunkirk was a very hard one. The town was being continually bombed by the Germans. It was the easiest objective to find of any that they had. It was 22 miles from their outpost at Nieuport, and they could send the student bombers over, and if they could not find anything else, they could find Dunkirk and put their bombs in that place. We were very much hampered in movement; the planes did not arrive and the material did not arrive to go to work with, as was the case in practically every activity—nothing arrived as fast as you expected it to. So that during the time from February 3 to the 25th of March we were not able to operate war patrols at Dunkirk, as we did not have the gunnery equipment nor the bombs, nor did we have enough ships. When our ships began to arrive we began to set them up. We utilized that period to get the station in order and carry out our patrols. We carried out as much training as we could, simulating war patrols, except that we could not patrol the war area because we did not have any machine guns, but we simulated these patrols down the channel to Dover and Calais, and in that area where we did not meet enemy aircraft. It was good training for the pilots to keep in form and to maneuver, and to simulate attacks and carry out the procedure as they would when they had their guns, and were patrolling a live area.

During this time, from January to the end of March, the Navy had committed themselves to the program of the project in Italy. The Italians were very desirous of securing American support. If not of much actual value to them, it was good propaganda just to have some Americans in Italy. The number of officers available in our force—that is, commanding officers of stations—was very limited. There were not enough officers to go around in those positions. Every young officer of the Regulars was wanted for about three jobs, and there were not enough other people of experience to trust with even small commands, because we had practically gone to war with nothing at all in aviation, much less so than any other department of the Navy. By reason of that I was selected to go to Italy as commanding officer of one of the four stations. It ultimately worked out that we did not have but one station.

Senator WALSH. Before you take up your service in Italy, will you state whether you did any flying or instructing in flying as chief pilot at Dunkirk?

Lieutenant HAVILAND. Yes, sir; I was actively in charge, or rather directly in charge, of the entire planes and the other equipment, also their upkeep and maintenance. I took part in those patrols, led them myself, to correct faults and to know what the other fellows were doing. The question of training to fly was not taken up at Dunkirk. Everyone who came to Dunkirk was competent to take the air. The training consisted of tactics and making them airwise and able to carry out proper formations and know how to, we will say, resist attack to the best advantage and not scatter, and to maneuver as a unit and not to spread out.

Senator WALSH. You had charge of all the patrols, or most of them, did you?

Lieutenant HAVILAND. I did not individually lead every patrol, but I led most of them. My duties were such that I could not spend the entire day in the air. I was flying every day, though I supervised all that work and led most of these practice patrols myself.

Senator WALSH. Now, let us come to your taking one of the stations at Dixmude; what station, and how long were you there, and what were your duties?

Lieutenant HAVILAND. I was explaining this at Dunkirk to show why we had not begun actual war operations up to the time I left. The difficulty was that the station was just started. We had not received our armament, and we were very slow in receiving planes, and up to the time I left we were not engaged in war patrols because we did not have the equipment. It was just beginning to arrive at the time I was sent to Italy. We did the best we could with this training and simulated war patrols in different areas where we would not encounter enemy aircraft.

Senator WALSH. On what date did you arrive in Italy?

Lieutenant HAVILAND. I was sent to Italy on an inspection trip with three other officers—or I should say four other officers—on the 11th of April. I was ordered to Paris, I believe, the 6th of April. In the meantime, some two weeks before that, from the 25th of March to the 11th of April, I was attached to an

English pursuit squadron in the Flanders area. On the 25th of March the break came in the Somme; Gower's Fifth Army gave way, and they commenced to overrun the area that they had retreated from the year before—that whole Somme area.

The Englishmen were very much in despair, and the question came up of our evacuating Dunkirk; it was touch and go whether the Germans would take the coast; they would not have won the war, but they would have raised a good deal of trouble if they had taken the channel ports. Well, as Dunkirk at this time was not functioning as was supposed, due to the difficulties I have described, and the absence of certain essentials, such as bombs and machine guns—we tried to do everything within our power to assist the British. The entire resources of the station at that time were placed at the disposal of the British, to do anything, if it was only hauling dirt to make roads; to be engaged and not to be idle. They evacuated one of their airdromes that had been under fire—it had been so shot up that they could not operate it. The men turned to and carried off these hangars and set them up in another area farther back. I was sent with three other pilots to the English squadron to replace casualties in the English squadron operating in the Dunkirk area a few miles from Dunkirk. Incidentally, it was R. N. A. S. British naval squadron.

During these two weeks we engaged with their war patrols as pilots on the same standing as their pilots. I might say that we carried out our routine patrols, as we were assigned to the patrols.

Senator WALSH. Did you engage in combats at this time?

Lieutenant HAVILAND. During the two weeks I was in the squadron I believe my time was about 13 hours on war patrols, and during that time the patrols I was on did not engage enemy planes. One patrol during those two weeks had knocked down two Germans. It was a patrol that, as it so happened, the Americans were not on. There were some 15 pilots in this squadron.

Senator WALSH. Now, you can take up your work in Italy.

Lieutenant HAVILAND. I went to Italy with an inspection party to look over the sites of prospective American stations, to look over the localities, and the condition of the buildings that we were to go into, to determine whether or not the localities that the Italians proposed to establish Americans in were suitable; whether they all were, or whether some or them were, and to reach a decision to specifically designate what stations the Americans would take.

Due to conditions existing at that time, the hardship in getting material, you could not do all you wanted to right away, and it was decided to start one station at Palestrina, that being the most advanced of these four positions that were proposed, or locations, rather.

Senator WALSH. You mean by most advanced, nearest the enemy?

Lieutenant HAVILAND. Yes, sir; it was between Ancona and Venice, and directly opposite Pola, the Austrian naval base.

So it was decided that the only possible practical thing to do was to concentrate on this one station and establish it, get it going, and then take the others up later as opportunity offered. That decision was well founded, as it so turned out that no other station operated at all. In the following seven months we were not able to put up another station. If we had tried to open up two or three, we would not have accomplished anything during that period. So that decision was vindicated.

Senator WALSH. Who was put in charge of the station?

Lieutenant HAVILAND. I was commanding officer of the station. Lieutenant Commander Callan, a reserve officer at that time, who had been in Italy before the war as representative of the Curtis Airplane Co., and had some Italian associations, was able to handle intelligently the project there because of his previous association with the Italian Government as airplane representative from the Curtis Co. Callan was in charge of aviation at the start. It was later turned over to Captain Train, who was naval attaché at Rome. Callan then became aid for aviation on his staff. He did the routine work of covering correspondence and supplies and handling the many details in connection with aviation as a whole in Italy, but under the supervision of Captain Train, who was senior officer present.

Senator WALSH. How many men did you have at the station?

Lieutenant HAVILAND. Three hundred and seventy-four.

Senator WALSH. All under your command?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. What equipment did you have here?

Lieutenant HAVILAND. The equipment was to consist of 32 planes—all Italian planes, incidentally; we did not have any—16 single-seater flying boats known as the *Mocchi 5-5* was the serial number of that particular design; and 16 *Mocchi* bombing boats known as the *Mocchi 8*. As a matter of fact, we never got all of this equipment. We suffered some casualties to equipment and were never able to get up to our authorized number of planes. Our best average was about 16 planes in commission. We at no time had anything like 32, and it was physically impossible to keep up the highest standard of planes. Our efficiency, I believe, was very high. We had 85 per cent of our planes available for war patrol every day. I think a fair average of the station would be about 65 or 70.

Senator WALSH. What were the duties of the men at your station; did you engage in combat, or just patrol?

Lieutenant HAVILAND. Yes, sir; to begin with, the station was entirely American. They at first wanted to leave some Italian officers and some Italian personnel there to instruct the Americans and induct them into Italian ways. I believe I had a personal row over that. I was very much against dual control and did not want to work with the Italians on the station. I wanted it to be an out-and-out American station. It was impossible to run it any other way and be efficient. If we could not make it go, that was one thing, and if we could, it was something else; but the dual control situation was impossible. It took me a couple of weeks to get that straightened out—to get all the Italians off of the station. Our operating orders were issued to us by Captain Valli, chief of the staff of Admiral Marzolo, who was commander in chief in the Adriatic, with headquarters at Venice.

We were given areas to patrol for submarine patrol, and we could make unlimited reconnaissance by flights over Pola. The efficiency, or rather, the operating method, that we used to efficiently patrol those zones, was left to us. They had nothing to do with nor any interest in the methods we used. It was simply to obtain results. We either properly patrolled the area or we did not. That was the answer. We could use our own initiative in figuring out how we would efficiently patrol that area, which was done, and was satisfactory.

The one thing that we could not do was to bomb the enemy at our own discretion. It was a thing that I tried to have removed from the first day I got there, but I did not draw enough water to do it. We could only bomb when they told us to, which was very seldom. They did not prosecute their operations with much vigor, because they feared retaliation, and there was a political side to it, the Italian Irradenta, and Italian sympathizers being of the Austrian persuasion in that Dalmatian strip. We actually made 4 raids at Pola, when we might have made 40. Those were, of course, in special operations, in addition to the daily antisubmarine patrol, which consisted of properly searching the given areas in the middle of the Adriatic and off Pola for enemy submarines; escorting Italian submarines to a listening station on the Austrian side, flying over the harbor of Pola in favorable weather, to observe the Austrian fleet, the movement of their ships in the harbor, or devising a scheme of plotting their anchorages. One pilot would take a torpedo section in the basin, and another would take the submarine ways, another taking capital ships to anchor, and he would have these charts with him and have a good 10 minutes' look at the location, and he would just plot whether any ship had moved, or any new additions, so that he might check up every Austrian ship at Pola. But the information was not used to any advantage.

Senator WALSH. Was this method one of your own conception?

Lieutenant HAVILAND. I started it; yes, sir. That was merely a fundamental of war routine that they tumbled to very quickly in France.

Senator WALSH. How long did you remain at this station?

Lieutenant HAVILAND. When I was commissioned the 1st of August; we arrived about the 25th of July. We left the 2d of January and sailed from Genoa the 4th of January, 1919—about seven months.

Senator WALSH. And returned to America?

Lieutenant HAVILAND. And returned to America from Genoa; yes, sir—the whole detachment.

Senator WALSH. When did you arrive in America?

Lieutenant HAVILAND. I arrived in America on the 23d of January.

Senator WALSH. Did you have command of the return of the detachment?

Lieutenant HAVILAND. No, sir; it so happened that the executive officer was five years my senior. He had gone down there entirely at my solicitation, and they allowed him to go. He was not a pilot; he had had about 14 years' service,

and it so happened. He was not a Regular, he was a reserve lieutenant, but had been a lieutenant in the militia and had eight years service in the Navy. He was a splendid type of man, and I knew if he would cover the ground job and run the personnel I would be free to devote myself to the policy of the station, and particularly to the flying. The senior pilot of the youngsters I had was 20 years old.

Senator WALSH. He was the oldest pilot you had?

Lieutenant HAVILAND. He was the oldest in grade. The oldest in age, I think, was about 26. He was a junior lieutenant—Reed—and he was only junior lieutenant of the station. All the rest were ensigns or enlisted men. Incidentally he was a crackajack, and I ran the flying through him; I mean I kept it directly in my hands, and also by orders issued to him; in other words, I did not trust his youth or judgment. I let him issue orders, but I gave him the instructions, because I had had experience and was very naturally the logical one to cover that. It worked out very well.

Senator WALSH. Is there anything else that you desire to say with regard to your experience in Italy?

Lieutenant HAVILAND. There is just one point—but I do not know whether to mention it or not; it is entirely personal, although it relates to some other officers.

When we left Italy the chief of staff of Admiral Marzolo, Captain Valli, whom I have mentioned before, arrived in Genoa about 9 o'clock in the morning. We sailed the 4th of January at about 2 or 3 o'clock. He came to the hotel to see the officers of the detachment, and had been sent down to Genoa by the admiral to give some of the officers decorations. He showed me at that time the list of citations that the admiral had made out and sent to the senior officer present in Italy of the American forces for approval before the decorations would be published or issued.

There had been more or less controversy about the decorations on the other side. He said he wanted to assure me that he did not want the Americans in this detachment at this station to think that they had been slighted by the Italian Government. Of course, we contended that it did not enter anyone's head at all, but it is part of the Latin's way of doing things. He said he wanted to show me the original citation from the admiral. The original citations had been drawn up by Captain Valli himself, in his own handwriting, and had been typed and sent to Rome. He showed me the typed copy that had been sent to Rome. The senior officer present had instructed them, also in his own handwriting, that it could not be done.

Senator WALSH. The senior officer of what?

Lieutenant HAVILAND. Of the American forces in Italy.

Senator WALSH. The senior officer of the American forces in his own handwriting had disapproved?

Lieutenant HAVILAND. Had disapproved of a very large number of these decorations; in fact, with respect to receiving the Italian war cross, which was the least of the decorations; that is, the least in value.

Senator WALSH. What were the other decorations that would have been given to you and others had that change not been made?

Lieutenant HAVILAND. Three officers were cited for the Italian silver medal of valor; Lieutenant Almore, executive officer, who had not engaged in flying, but whose services on the station had very materially increased its efficiency and made the station a success, was awarded the cross of Savoy. That was canceled.

Senator WALSH. Was this officer a reserve officer?

Lieutenant HAVILAND. Yes, sir. He is now electrical gunner on the *Langley*. He has some 15 years' service.

Senator WALSH. Now, what about yourself; what recommendation was made of you?

Lieutenant HAVILAND. As commanding officer, the question of medals is in a good many ways itself unjust. It would be better if we did not have any decorations at all; it would probably be better than the way it has worked out. Commanding officers of units, especially of foreign units, even small commands abroad, if they had served any length at all and made contact with the enemy, they were, all of them, made chevaliers of the Legion of Honor. It was done in France with American officers, and it was done in Italy. Capt. Juggy Nelson's outfit got one of them. So, under the score of commanding officer, I was put down for the Legion of Honor.

Senator WALSH. Which you never got?

Lieutenant HAVILAND. No, sir; which was disapproved—scratched out.

Senator WALSH. Because some senior officer of the American Navy at Rome scratched it out?

Lieutenant HAVILAND. He just did it because he did not get it himself.

Senator WALSH. Who was that officer—a regular naval officer or a reserve?

Lieutenant HAVILAND. It was Captain Train, son of Admiral Train, who had had C. and C. Asiatic.

Senator WALSH. Was he a regular or a reserve officer?

Lieutenant HAVILAND. He was a regular.

Senator WALSH. But most of the men whose names were stricken out, and who had been recommended by officers in the Italian Navy, were reserve officers, like yourself?

Lieutenant HAVILAND. They were all reserves. There was no regular officer on the station. They were all reserves.

Senator WALSH. So the fact was that the regular naval officer at Rome, who was not at the station at all, censored the Italian recommendations?

Lieutenant HAVILAND. He had to, in his official capacity; it had to go through him.

Senator WALSH. And as a result of his action a large number of reserve officers, including yourself, at the American air station, were prevented from receiving decorations that the Italian Government was willing to give them?

Lieutenant HAVILAND. Yes, sir; that is absolutely as you have stated it. The proof of that can be readily found through the Italian Embassy, from the naval attaché here. They can look into Admiral Marzolo's files and get the original. There is his own handwriting in the margin.

Senator WALSH. Now, will you make the distinction between the communication from the Italian Government, or decoration which you have referred to, and the one you would have gotten had the recommendation gone through?

Lieutenant HAVILAND. Well, the Latins write very laudatory commendations. I could truthfully say that most of them do not mean anything. They give you a great send-off, but there is not much to it. The officers who were cited were practically as much entitled to it as others who got it. That is the only thing I can say.

Captain WILLIAMS. May I interrupt you for a moment?

Senator WALSH. Certainly.

Captain WILLIAMS. I do not want to waste time, but I want to call attention to the fact that Captain Train is here in town on duty, and I can only state, without looking it up to be accurate, that it is my impression that at the time the witness is testifying to there was a legal limitation on these decorations, and perhaps he knows more about it than I do.

Senator WALSH. I will ask him about that.

Lieutenant HAVILAND. Yes, sir; that is possible. I would like to give this testimony before Captain Train. I have never mentioned it before.

Captain WILLIAMS. Was the law at that time not such that only official allies of the United States could bestow decorations on an American officer? It is my impression that at that time Italy had not been declared an ally of the United States.

Lieutenant HAVILAND. Well, I would like to call Captain Nelson, who had the subchasers at Corfu. If I remember correctly, he had a general decoration.

Senator WALSH. Is it a fact that at this very time the regular naval officers did get these same decorations?

Lieutenant HAVILAND. We can prove that. We can get Captain Nelson or Captain Train.

Senator WALSH. You know it to be a fact?

Lieutenant HAVILAND. I do know it to be a fact. I do know it for a fact that he got several. He can tell you about that.

Senator KEYES. The point that Captain Williams makes is not whether he got the decorations but when he got them.

Captain WILLIAMS. It is a question of time.

Lieutenant HAVILAND. They are still decorating people who were here in Washington during the war. They have been sending military crosses here, two years after it happened. I happened to have a medal of honor man in my squad—Hays Hammond.

Captain WILLIAMS. There were many foreign decorations that were bestowed which could not be accepted on account of the law at that time, and within a week or two, or 10 days later, the United States having declared that we would say that Italy, or some other nation, was an ally, they were accepted in

great numbers. The witness is quite right about the character and quality of them. There is no question about that.

Lieutenant HAVILAND. Captain Train should have started his flights in Italy. I started mine. I fought for a medal of honor for Hays Hammond, and got it; I did not get it, but it was taken up to Captain Sims, and he was one of the medal of honor men, and he finally got it, a year and half after he was killed. I do not intend to set myself up as originating that medal for Hammond, but I followed it up. The Navy spirit, as I have seen it in my period of time, although it has been short in the Navy, is to back the people who are pushing the game to the limit, and not drop them overboard.

Senator WALSH. I will say that the only reason, Captain Williams, that this is introduced, is that I asked the witness before he came to be very frank in telling of his experiences, even if it was of a personal character, to show the value his services have been to his country.

Captain WILLIAMS. There is no doubt about that.

Senator WALSH. And he introduced this only to show what the Italian Government did.

Captain WILLIAMS. He is to be thoroughly congratulated on his services.

Lieutenant HAVILAND. I would like to say further that this question of medals has been brought up as the Senator has just stated it. I have never made any remarks about it at all. I have seen Captain Train in the fleet, but never spoke to him or anyone else about it. I do not suppose that there are three officers in the service to-day who know anything about it. I have never even talked about it in conversation. I have no sense of having been done an injustice at all. As a matter of fact, I am rather indifferent to it. If I had not been, I could have taken it up or tried to get some one to take it up for me, but I have never done it and certainly would have a very poor opinion of a man who tried to get himself decorated. That is the way I feel about it. This is the first time I have ever referred to it.

Senator WALSH. The fact is that an Italian officer called your attention to what had happened and wanted to show you, before leaving Italy, what he and his commanding officer thought of your services?

Lieutenant HAVILAND. I never mentioned it to anybody before you brought it up this morning.

Senator WALSH. Now let us come to your services for America. You arrived in America, and what has been your work since that time?

Lieutenant HAVILAND. I came back from overseas, arriving in New York on the 23d of January, 1919. At that time the fleet was going south, within a week, for winter maneuvers, target practice, and the usual procedure. As a new departure, the *Texas* had brought back three planes from France—the U. S. S. *Texas*—and it was the desire in the Navy to try out those three planes and see what we could do to start the work of pushing aircraft in the fleet; we had to start sometime, and it was proposed to put pilots aboard the *Texas* and send her to Cuba and launch those planes from the turrets.

Senator WALSH. That was the first time this had been attempted?

Lieutenant HAVILAND. It was the first time it had been attempted in the service. Civilian planes a good many years before, of a totally different type and totally different rate, had landed and been taken off from the ship. One of the Curtiss pilots operated at that performance at the time, but the civilian effort had no military value at that time. It, however, was in the nature of something that would lead up to the future use of planes or aircraft, but the service had not done anything with it during the war as, of course, it was impossible to carry on experimental work and do the development work that is usually done in peace time under the stress of war. There were too many other things to be done. So this was the first opportunity that they had had to try it in the fleet. It was in the months of January, February, and March, 1919, when the *Texas* was one of the ships in the battle squadron that brought these planes back from the other side.

When I arrived in the States I was granted a 10-day leave, and I came up to the department—

Captain WILLIAMS. Pardon me, what was your rank at that time?

Lieutenant HAVILAND. Lieutenant.

Senator WALSH. Senior grade?

Captain WILLIAMS. Not temporary?

Lieutenant HAVILAND. No, sir; not temporary. I was a reserve in class 5.

Senator WALSH. Senior grade, and became lieutenant commander at a later date, which you will come to?

Lieutenant HAVILAND. Yes, sir. As I lived in Minnesota and not having seen my family in four years, I came to Washington to see if I could not get 30 days leave rather than 10, so that I would have a little more time with my family. At that time I was not married, and I am referring to my mother and other relatives.

Senator WALSH. Are you married now, Lieutenant?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. And living here in Washington?

Lieutenant HAVILAND. Yes, sir. I live here in Washington.

Senator WALSH. I might ask if you have any children.

Lieutenant HAVILAND. Yes, sir; I have a little girl, 20 months old.

In coming to Washington to see about the extension of leave, so that I could have a longer period at home, they said they wanted two pilots who were proficient with land machines, to go south with the *Texas* on the 30th of January. They asked me if I wanted to go. I said I was not crazy about it; I had just come back from overseas, and they explained that it was a volunteer assignment, that I did not have to go unless I would say I would go; I would not be ordered there arbitrarily, but if they did not go they would have to send a marine officer in my place, which the Navy did not want to do. They did not want to feel that they were depending on a marine pilot to carry out a straight naval experiment. So I said I would go; so I left in the third week after I got back from the other side.

Senator WALSH. Did you go home?

Lieutenant HAVILAND. No, sir; I had no chance.

Senator WALSH. How long since you have seen your mother and father?

Lieutenant HAVILAND. My father is dead, but I had seen my mother about 18 months before. She lived in Paris during the war.

Senator WALSH. And you went on this duty?

Lieutenant HAVILAND. Yes, sir; I went out with the *Texas*.

Senator WALSH. How long were you on that duty?

Lieutenant HAVILAND. Well, I was in it until January of this year; I have been in that detachment ever since, going south the last three winters with the fleet.

Senator WALSH. Now, just what does your duty consist of?

Lieutenant HAVILAND. Well, my duty consists of flying off ships, carrying out intensive radio practice, both for practice of pilots and to establish communications with the ships for spotting purposes; that is, sending a fall of shot from a ship to the highest platform, having better observation of the salvo firing on a target, which would stimulate fire on enemy ships, the practice of flying off turrets, flying off ships under way, and during our period south, when the planes were on the beach, we carried out the routine described—gunnery exercises, training for pilots, and reconnaissance flights. Our main objective was communication with the fleet, spotting practice, in the development of the radio; and incidentally that is more intricate and difficult than it sounds off-hand, because we had a great deal of trouble with radio sets. We would put ourselves in touch with them and get no results at all, due partly to material; sometimes it was the fault of the personnel and sometimes the fault of the operators of ships, and sometimes the fault of some of our pilots—less of the pilots, though, than the ships, I think, because it was something new to them. It required constant daily drill. We had a daily operation order which was made out and posted each night, of the operations to be carried out the following day, which meant the assignment of pilots by name and designated planes, which had a number, and it prescribed the duties we would carry out during such periods. The formation would leave the ground at such time and fly during the hours 9 to 11, or 8.45 to 10.45—whatever the schedule was to be carried out, and that was so arranged that all the pilots were employed every day in this training.

Senator WALSH. How many pilots were there on this ship—the *Texas*?

Lieutenant HAVILAND. Well, this description of the fleet work is not based on the first year. The first year was experimenting and this was a continuation of that first year.

Senator WALSH. Can you develop that?

Lieutenant HAVILAND. The development of these first tests, to find out where we could actually land a plane without bumping everybody off.

Senator WALSH. Was it difficult and hazardous the first experimenting on flying from the turrets?

Lieutenant HAVILAND. I believe conscientiously that the first unusual operations or experiments are the most hazardous. You undertook something that

you did not know anything about. I might say, that you did not know what the result would be. You know you are going to do it the way you think is the best way from knowledge and study of the problem. But you always find a better way to do a thing after you have once accomplished it. It is much easier to lay down a rule of procedure for others to follow; it is much easier for them to follow it when the conclusion is known—where you have found out what happened. I think that without trying to set myself up personally as an authority, that the first experiments, from the nature of the operations, are more hazardous than the subsequent operations of the same nature, because we have a definite conclusion to go on; we know what to tell the pilots to do, and we know what to tell them they must expect to happen.

Senator WALSH. Were you in charge of this work?

Lieutenant HAVILAND. No, sir; Lieut. Commander E. O. McDonnell was; and, incidentally, he is a medal-honor man, and a very energetic man, and a very superior type of aviation officer; one of the very best I have ever met in the service. He has since resigned.

Senator WALSH. He has left the service?

Lieutenant HAVILAND. Yes, sir; he left it shortly after that. He did not go south the following year; he left the service, I believe, in the spring of 1919 or else he got relieved in the fall of 1919, and his actual resignation went in in the spring of 1920. I am certain he left fleet activity in the fall of 1919.

Senator WALSH. Who succeeded him in the fleet activity?

Lieutenant HAVILAND. Well, I succeeded him for a time. During my period as operation and executive officer of this detachment, I have frequently had command of the detachment for short periods. The policy has been—and I think justly so—not to allow the reserve officer to command a detachment in the fleet, because there are too many regulars of senior grade floating around.

Senator WALSH. Well, as operating officer you had full charge of all operations?

Lieutenant HAVILAND. Yes, sir; I had entire charge of all operations and the entire flying equipment—both the upkeep and their operation.

Senator WALSH. During what period of time have you held that office with the fleet?

Lieutenant HAVILAND. Three years.

Senator WALSH. You have been operating officer all that time?

Lieutenant HAVILAND. Yes, sir; I have been with the fleet all that time actively operating. I feel that I am qualified; but the detachment has not been in the fleet during the summer, because the ships have been in the navy yards, and to avoid letting down and dissipating the effort of our training in Cuba we have tried to keep the outfit together and gain better efficiency, and for that reason we were on two different Army fields the last two summers, so that the detachment in the fleet could keep up efficiency.

Senator WALSH. What Army fields were those?

Lieutenant HAVILAND. The Langley Field, outside of Hampton, Va., and the Mitchel Field, which is just outside of Mineola, Long Island. You see the detachment could not be kept aboard ship, because they would lose all they had gained during the operating period in Cuba. They had to continue to operate and practice precision in landings. It is just just like playing golf when you are playing three months and not playing at all for the next nine.

Senator WALSH. When were you made lieutenant commander?

Lieutenant HAVILAND. In April, 1919, as I presume a result of that letter [indicating].

Senator WALSH. Will you read that letter—from whom to whom, and the date?

Lieutenant HAVILAND. The letter is as follows:

"U. S. S. TEXAS,
"GUANTANAMO BAY, CUBA,
"April 7, 1919.

"From: Commanding officer.

"To: Secretary of the Navy.

"Via: Commander battleship division six.

"Subject: Lieutenant W. B. Haviland, U. S. N. R. F., class 5, recommendation for promotion.

"Reference: (a) Bureau's 'Memorandum regarding Naval Reserve Force.'

"1. It is strongly recommended that when the next promotions are made to fill vacancies in the established complement of class 5, Naval Reserve Flying

Corps, Lieut. W. B. Haviland, U. S. N. R. F., be advanced to the grade of lieutenant commander.

"2. Lieutenant Haviland served with credit in the French forces before the entry of the United States into the war, served with distinction in the United States Navy Air Force in Europe, and is now rendering valuable service on board this vessel as aviation officer. Attention is invited to the numerous commendatory letters and dispatches received by Lieut. W. B. Haviland, of which the originals or copies are presumably on file with his official record.

"3. Lieutenant Haviland's services on board this ship have been eminently satisfactory and have shown him to be an officer not only of aviation ability, but of seasoned judgment and executive ability in general.

"/s/ N. C. TWINING."

The commanding officer of the ship was Capt. N. C. Twining, who was Admiral Sims's chief of staff in London and has since been raised to flag officer of the Pacific Fleet.

Senator WALSH. Will you state how many reserves and how many regulars comprised this detachment which you have been connected with?

Lieutenant HAVILAND. There have been three commanding officers of the detachment in the last three years, and they have been regulars. Lieut. Commander E. L. McDonnel was the first officer in charge of the detachment. He was succeeded by Lieut. Commander Chevalier, a regular, and he in turn was succeeded by Lieut. Commander B. C. Griffin, a regular, and those three officers commanded in succession during those three years, up to this last January, when the detachment was ordered to *Langley*.

Of those three commanding officers, Lieut. Commander McDonnel has resigned, and also Lieut. Commander Chevalier, and Lieut. Griffin has now reverted to two stripes. He was lieutenant commander. Those two are aboard the *Langley* at the present time.

Senator WALSH. What is the *Langley*?

Lieutenant HAVILAND. She is a poor excuse for an airplane carrier.

Senator WALSH. What is it that has caused a smile from these officers here?

Lieutenant HAVILAND. It is a ship that has been rebuilt—a collier—to fill a gap to enable aviation to do something to carry on operations. They have been so limited in appropriations that it has been impossible to get a good airplane ship; and in justice to the Navy and to the officers in it I will say that they are doing everything under heaven to try to make use of what they have. They can not get the money, and can not get what they need; so that they have to use any makeshift that will possibly do as a substitution, and that is what this is. It is not worth powder to blow it up. However, it is the only possible thing to use. It is either a case of sit down and do nothing or try to use the very poor substitute, like the *Langley*, and try to gain some ideas to do something better when they get it.

Senator WALSH. Will you state the composition of the rest of the detachment?

Lieutenant HAVILAND. During this three-year period that I have referred to—from January, 1919, to January of this year, an exact three-year period—there have been three regular officers—and by regular officers I mean graduates of the Naval Academy—assigned to this division during that entire period. One of those officers, the first one assigned, Lieutenant Eekhout, was killed about a month after he joined the detachment at Guantanamo, Cuba. The two other regular officers were Lieutenant Wooster and Lieutenant Fleming, who joined the detachment last summer at Mitchel Field, and they were detailed to other duties in about a month's time—three weeks or a month.

Senator WALSH. Why?

Lieutenant HAVILAND. Well, that I do not know. The tendency has been to let the reserves do the training.

Senator WALSH. And all the rest of the work has been done by reserves?

Lieutenant HAVILAND. Yes, sir; entirely.

Senator WALSH. So if this whole detachment outside of the commanding officers—this one officer who was killed, up to last summer, when two more regulars were called and have been detached—all the work has been done by reserve officers?

Lieutenant HAVILAND. Yes, sir; entirely.

Senator WALSH. And the development of this kind of work has been the result of the contribution made by reserve officers?

Lieutenant HAVILAND. That has been the practice; and from the standpoint of the Navy, they feel it is justified. The regular officers who had been in-

ducted into aviation have been kept pretty much out of operating. They have had a crack at it, to know what it looks like, and then, because of their technical ability, they are moved into positions where they are of greater value; in other words, where they can gather material, or get inspection jobs, and are not engaged in actual flying operations. That is the reason why they are moved out, because that has been the tendency; they are graduates of the academy, young officers who are still pursuing their studies, and they move them into administrative or subordinate administrative duties.

Senator WALSH. From October, 1920, to May, 1921, during the period of time that it is claimed here opportunity was given for preparation for examination, where were you stationed?

Lieutenant HAVILAND. We were stationed at the Army field at Mitchel and the field at Long Island when the first definite syllabus, or whatever you might call it, of this examination was issued and broadcasted in the service. It was a syllabus of what the examinations would cover. That was about it.

Senator WALSH. Prior to that time, did you have any knowledge of the character of the examination, and particularly the fact that it was to cover a large number of subjects that were particularly within the duties of line officers in the regular Navy?

Lieutenant HAVILAND. No, sir; and I think I can voice the impression of the average reserve officer. Of the number that are up to be inducted into the regular service, I have not heard their views, but I think I represent their viewpoint. I believe that they hoped that their records would be taken into consideration as the first basis; that they would try to eliminate material. People that had been proficient but had had disciplinary action taken against them thought that would count in favor of the men who had good records as the first elimination or review of records of what they had done as reserve officers.

I do not think they felt they would be handed a commission on a platter, but they did hope that the first selection being made and the weeding out of apparent undesirables—and there were, without question, some—that the nucleus would be taken in hand, and if they were going to be examined on a par or nearly a par with graduates of the academy that they should be given some opportunity, such as shorthorns at Annapolis, say, give them six months or a year's detachment from flying duty and put them under competent instructors to qualify them. It so happened that some reserve officers did have an opportunity to study, because they were detailed to stations. During this entire period that schools were inaugurated and started it was even made compulsory that they attend those schools; that is, that the few that passed had all been offered that training by people who were carrying on school work. The people who really suffered, the people that were doing the operating during this period, that were engaged in flying, did not have administrative duties about a station, where they perhaps would have more time than the people who were operating. There is a psychology to this proposition of the air which I think a good many people fail to realize, those who do not go into the air. The man who has been flying for some time, and who is carrying on the arduous duties of the air, is under a strain; there is no question about that. It certainly is a strain.

It bears on one mentally and physically when he is engaging in operations that are, we will say, somewhat hazardous, and when he is at liberty, when he comes down in the afternoon, the last thing he will do by inclination is to poke his face into a book and try to study. There is no question about that. He wants physical recreation—baseball, or playing cards, or something diverting to his mind—to take him outside of his flying grind. There is no question about that in my mind, and I have been flying seven years and I know. Another thing, a type of man who is scholarly, who has the disposition to become a technical authority, very often lacks certain essentials, such as ability to handle men, and certain other qualities that tend to leadership and to get things done, to be doing things. There is no question about that, either. Of course, the real, happy medium is to get men with some push and some brains; I realize that.

Senator WALSH. From your knowledge of the Naval Reserve officers, does the result of the examinations confirm just what you have said, that men who are up in theory, many men who are merely theorists and who have not demonstrated a great deal of operating capacity, have passed?

Lieutenant HAVILAND. Yes, sir. I am not making it a question of individuals; I am making it a question of conditions, which I think a study of the situation will prove. I really think that unquestionably the best single asset the Ameri-

can Army has is General Mitchell, because he flies. There is no question about that. Personally, I do not agree with General Mitchell in a good many things, especially his attacks upon the Navy, but you can not deny the fact that he flies, and he is the biggest single asset the American Army has to-day.

The CHAIRMAN. Was there any school of instruction adjacent to where you were stationed?

Senator WALSH. If you will pardon me, Mr. Chairman, I will come to that. Were there any classes of reserve officers in your detachment?

Lieutenant HAVILAND. No, sir; there were not. We were on two Army fields. Of course, the first was irrelevant, because that was before this period, but at Mitchel Field there were no other Navy people there except this detachment which we are referring to. It was an Army post. The Army, during our time there, during the summer of last year, were conducting their examinations.

Senator WALSH. While you were there, were examinations held for the Flying Corps of the Army?

Lieutenant HAVILAND. Yes, sir; one of the Alaskan forces asked if they knew anybody at Kelly Field, and they said yes, and he said that will do, and he got a commission.

Senator WALSH. Were they oral examinations?

Lieutenant HAVILAND. Yes, sir; I know that a good many of them were.

Senator WALSH. And they were received largely upon their records?

Lieutenant HAVILAND. I do not know the procedure of the Army examinations in detail, but if they stood a rigid examination comparable with this little over a week's written test that the reserves had, I do know that their best pilots were taken into the service irrespective of that examination, because I know, as I have just remarked, of one pilot who had none at all and was commissioned.

Senator WALSH. Was that in the marines or the Army that you are speaking of?

Lieutenant HAVILAND. I am speaking of the Army—Mitchel Field.

Senator WALSH. And that was during the time you were there. I have asked, Mr. Chairman, the Army officer at the head of the Flying Corps to submit to us the form and character of the examination which was given to their reserve officers. Lieutenant, were you with the fleet at all during those six months from October to May?

Lieutenant HAVILAND. No, sir; we were not. We received no planes up to the period of last summer; we had been operating with foreign-built planes and engines, because at that time we did not have a suitable type of American manufacture to use that would do the work. Last summer we began to get the American-built planes that would do the work, the type we are using now.

Senator WALSH. I am not speaking of last summer, but the year before, previous to the examination. I want to show the committee what you were doing previous to the examination.

Lieutenant HAVILAND. At Langley Field?

Senator WALSH. Yes.

Lieutenant HAVILAND. From May to October?

Senator WALSH. Yes; were you there all the time?

Lieutenant HAVILAND. Yes, sir; that was a short period of about 11 weeks.

Senator WALSH. October to May, were you with the fleet part of the time?

Lieutenant HAVILAND. We were at Langley Field. We came back in May.

Senator WALSH. I am speaking now of October, 1920, to May, 1921. Did you have your examination last May, a year ago this time?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. Now, for the six months previous to that, where were you?

Lieutenant HAVILAND. I made a mistake there, because I said we were at Mitchell Field last summer. We were not; we were at Hampton Roads. We were at Mitchell Field in 1920 and Langley in 1919.

Senator WALSH. Now, during the time that the schools were established and the reserve officers had knowledge that examinations were to be held—

Lieutenant HAVILAND (interrupting). At Hampton Roads.

Senator WALSH. Were you at Hampton Roads?

Lieutenant HAVILAND. No, sir; we were south with the fleet.

Senator WALSH. As I thought. How long were you with the fleet during that period of time?

Lieutenant HAVILAND. We arrived the 25th of April, as I remember.

Senator WALSH. And when did you have your examination, the following month?

Lieutenant HAVILAND. Yes, sir.

The CHAIRMAN. You were notified, were you not, that this examination would be of a character broadened as it was?

Lieutenant HAVILAND. Yes, sir; we were notified in a syllabus which was referred to, which was issued to the service, of the nature of the examination.

The CHAIRMAN. Were you ever notified that if you desired it, you could have certain time off for preparing for that examination?

Lieutenant HAVILAND. Well, it was not possible to do that in Cuba when we were operating with the fleet. We could not go to school while we were in the fleet, because the fleet was steaming out of the bay, intending to cross through the Panama Canal and join the Pacific Fleet. We were gone from Guantanamo for three weeks, for one thing. We could not have gone to school while we were on the ship. We were making that trip down to South America.

Senator WALSH. Do you know how many men there are in a similar plight with you, who had no opportunity for instruction?

Lieutenant HAVILAND. They were all of these 14 fellows on the same boat.

Senator WALSH. I understand that many of them were stationed where the schools were being conducted.

Lieutenant HAVILAND. I stated that a few were; to be specific, I mean Pensacola, for one. The men down at Pensacola took a nine months' course of instruction to become pilots, and a good part of that was devoted to ground work. In other words, those entire nine months are not spent in air training.

Senator WALSH. Mr. Chairman, he is talking about the schools held for this examination, not schools held for training.

Lieutenant HAVILAND. They were not held in the fleet.

The CHAIRMAN. I know that, but I wanted to know if you had any idea as to how candidates for this examination were situated as you were situated, where there was no school and no opportunity to take any instruction.

Lieutenant HAVILAND. Well, there was another outfit in the fleet, in the fleet boats. They were a land division, connected with land planes. They were not in the same situation that we were. They were constantly operating these big boats in the fleet. The commander of our force, Captain Johnson, and Captain Steele commanded those units. Captain Steele was the predecessor of Capt. A. W. Johnson, who now commands our squadron. They were exactly in the same status that we were, operating all the time with the fleet. They had no schools of instruction. The lighter-than-air people who went over to England with the C. R. ship, if anything, had more chance to study than we did, because they were over there a year, but I do not know where they made the examination; I do not know how they put them in, but they took most of them in. I am quite certain they did not take that character of examination and pass it.

Senator GERRY. How long before you took the examination did you receive this notice—this syllabus?

Lieutenant HAVILAND. About October, 1920. Have you gentlemen seen that syllabus?

Senator GERRY. I have not.

Lieutenant HAVILAND. It covers the whole Navy; that is what it covers. You might as well give a man a memorandum and say "I am going to examine you on the Constitution and history of the United States," and then ask any question he wants to out of that.

Senator WALSH. Mr. Chairman, I do not think that syllabus has been inserted in the record, and it would be a good thing to have it done.

The CHAIRMAN. It will be inserted in the record.

(The paper referred to is here printed in full as follows:)

CIRCULAR OF INFORMATION TO COMMISSIONED OFFICERS ELIGIBLE FOR TRANSFER TO THE PERMANENT LINE OF THE NAVY IN ACCORDANCE WITH SECTIONS 3 AND 5 OF THE ACT OF JUNE 4, 1920.

1. Pertinent parts of sections 3 and 5 of the naval appropriation act approved June 4, 1920, are quoted herewith:

"SEC. 3. The officers holding temporary commissioned and warrant ranks in the Navy and members of the Naval Reserve Force of commissioned and warrant ranks shall be eligible for transfer to an appointment in the permanent grades or ranks in the Navy for which they may be found qualified not above that held by them on the date of transfer, but not to exceed a total of one thousand two hundred commissioned officers in the line, of which number five hundred may be appointed from class five, Naval Reserve Flying Corps,

with proportionate number in all Staff Corps as now authorized by law, except that the Medical, Dental, and Supply Corps shall be entitled to such additional numbers as are necessary to make up the full quota of officers in those corps, as now authorized by law: *Provided*, That officers so appointed to the line of the Navy shall take rank in accordance with their precedence while holding temporary rank, and members of the Naval Reserve Force of commissioned and warranted ranks found qualified for a given rank shall be arranged according to their precedence among themselves and commissioned in the permanent service next after the lowest temporary officer who qualifies for the same rank and is appointed in accordance with the provisions of this act.

"Sec. 5 That officers appointed under any of the foregoing provisions shall be not more than thirty-five years of age when so appointed to the line of the Navy, Construction Corps, or Supply Corps, and not more than forty-three years of age when so appointed to the Corps of Chaplains, or to the Medical, Dental, or Civil Engineering Corps: *Provided*, That said age limits shall be increased in the cases of officers who have rendered prior service as paymaster's clerks, or as mates, or as warrant or commissioned officers in the naval service to the extent of all prior naval service."

2. Officers holding temporary commissioned rank in the United States Navy and members of the Naval Reserve Force with commissioned ranks who are not more than 35 years of age or whose age is not greater than 35 years plus their total former naval service, who qualify by the required examination, are eligible for transfer to the permanent commissioned line of the Navy.

3. The examination will establish the physical, mental, moral, and professional fitness of eligible candidates to perform the duties both at sea and on shore of officers of corresponding ranks in the regular Navy not above lieutenant. The examination will be held in May, 1921. All applications for authority to take this examination must be made out in duplicate on the inclosed form and be received in the Navy Department by December 15, 1920.

4. Within the limit of the 1,200 officers allowed by law: (a) Officers holding temporary commissions who may qualify for the rank of ensign, lieutenant (junior grade) or lieutenant will be appointed in such rank in their present position on the lineal list. (b) Reserve officers who may qualify for the rank of ensign, lieutenant (junior grade), or lieutenant will be arranged among themselves according to the dates of their present respective commissions and will be commissioned in the rank for which qualified next after the lowest temporary officer who qualifies and is appointed in such rank.

5. Answers to examination questions will be marked on a scale of 4.

6. To be satisfactory, a mark of 2.5 or above must be made on each subject.

7. The following weights for the several subjects are to be assigned:

(a) Records.....	300	(f) Engineering.....	100
(b) Navy regulations.....	50	(g) Electricity.....	50
(c) Navigation.....	100	(h) Military law.....	50
(d) Seamanship.....	100	(i) International law.....	50
(e) Ordnance and gunnery.....	100	(j) General education ¹	100

8. The examination will be written, the questions being of the following general character and scope:

EXAMINATION FOR ENSIGN.

(b) Navy Regulations:

(1) Chapters I, II, III, X, XI, XII, XIII, XIV, XXII, XXIV, XXV, XXVI, XLI.

(2) Emergency drills—Fire, collision, abandon ship.

(c) Navigation (except nautical astronomy):

(1) Rules for preventing collisions; international and inland waters.

(2) System of buoyage in the United States.

(3) Use of charts.

(4) Describe a magnetic compass.

(5) Describe how to lay a course.

(6) What is deviation and variation?

(7) Use of pelorus.

¹ To be determined from a consideration of papers submitted on all subjects.

(8) How are bearings taken and how is the position of ship determined by same?

(9) Use of hand lead and precautions to be taken in obtaining soundings when using hand lead.

(10) How are soundings used to fix position?

(11) Use of mercurial barometer and how read.

(12) Ability to navigate by D. R.

(13) What is chip log? How used?

(14) Use of patent log.

(15) How adjust sextant?

(16) What is an azimuth circle? How used?

(17) Use of Sir William Thompson's sounding machine.

(18) How is chronometer tick obtained at noon?

Navigation (nautical astronomy sights, etc.):

Work out the following navigational problem: At 8 a. m., April 13, 1920, a vessel took departure from Ambrose Channel Light Vessel (lat. $40^{\circ} 28' 30''$ N., long. $73^{\circ} 50' 15''$ W. Sailed thence on course S. E. true at 10 knots until local apparent noon when the navigator observed sun on the meridian as follows: $58^{\circ} 56' 30''$; I. C. = $+1' 00''$; Ht. eye 40 ft. Continued course S. E. true, speed 10 kncts until 4 p. m., when observed sun as follows: W. = 4h. 00m. 00s.; C-W. 4h. 50m. 18s.; chro. slow 00m. 01s.; $28^{\circ} 25' 30''$ I. C. $+1' 00''$; Ht. eye 40 ft. Continued same course and speed until about 7 p. m., when obtained following simultaneous observations of Polaris and Capella (*a Aurigæ W. = 7h. 00m. 00s.; C-W. 4h. 50m. 18s.; chro. clow 00m. 01s.; I. C. $+1' 00''$; Ht. eye 40 ft.; Alt. of Polaris $38^{\circ} 58' 30''$; Alt. of Capella = $53^{\circ} 31' 30''$.

Find: (1) Noon D. R. position with interval to noon. (2) True noon position.

(3) Current from 8 a. m. to noon.

(4) 4 p. m., D., R. position.

(5) Work line (Sumner or St. Hilaire) at 4 p. m.

(6) True position at 4 p. m.

(7) 7 p. m., D. R. position.

(8) True position at 7 p. m.

(9) Is Capella east or west of meridian? How do you know?

(d) Seamanship:

(1) Types of boats in Navy and their equipment.

(2) Handling of boats under oars and sail.

(3) Boat salutes.

(4) Hoisting boats.

(5) Man overboard—lowering and handling of lifeboats.

(6) Ground tackle—how care for; how is chain marked?

(7) Ship's log—what entries are made therein?

(8) Duties of officer of deck.

(9) Etiquette of side.

(10) Routine ceremonies (colors, etc.).

(11) What orders are given to steersman, and how?

(e) Ordnance and gunnery:

(1) School of the squad and company in Infantry.

(2) School of the section and battery in Artillery.

(3) Precautions to be taken in handling small arms and their ammunition.

(4) Describe any naval gun with which you are familiar.

(5) Describe projectile, fuses, primers of any naval gun with which you are familiar.

(6) Describe care and preservation of battery.

(f) Engineering:

(1) Duties of engineer officer as required by Navy Regulations.

(2) Briefly describe a modern type of reciprocating engine.

(3) Briefly describe a modern steam turbine.

(4) Sketch and describe a modern boiler.

(5) Name auxiliary machinery used in connection with ships power plant; describe a feed-water heater.

(g) Electricity:

(1) Define voltage, kilowatt, resistance, ground, torque.

(2) Where are shunt motors used aboard ship? Where series? Why?

(3) What is meant by operating dynamos in parallel? How done?

(4) What is a motor generator and for what purpose is it used aboard naval vessels? How do you tune a radio set?

- (h) Military law:
 - (1) What punishments may a commanding officer inflict?
 - (2) What are the limitations as to the use of irons?
 - (3) When the captain is not in the ship, what are the limitations of the officer in accidental command as to punishments?
 - (4) Who may order a summary court-martial?
 - (5) How is a S. C. M. constituted?
 - (6) Who may order a deck court?
 - (7) How is a deck court constituted?
- (i) International law:
 - (1) How determine a vessel's nationality?
 - (2) What papers should be found upon a private vessel?
 - (3) Define blockade? What notification is necessary?

EXAMINATION FOR LIEUTENANT (JUNIOR GRADE).

- (b) Same as ensign with following additions:
 - (1) Duties of divisional officer.
 - (c) Navigation; same as for ensign.
 - (d) Seamanship; same as for ensign and in addition:
 - (1) Getting under way and coming to anchor, a general description of.
 - (2) What signal systems are used in the Navy?
 - (3) Effect of right and left handed propellers.
 - (4) Turn right-handed single-screw steamer in limited space.
 - (e) Ordnance and gunnery; same as for ensign and in addition:
 - (1) School of battalion in infantry.
 - (2) School of battalion in artillery.
 - (3) Organization of landing force.
 - (4) Care and preservation of powder and ammunition on board ship. (Navy Regulations.)
 - (5) Storage of ammunition on board ship.
 - (6) Gunnery instructions.
 - (7) Safety precautions.
 - (8) Morris tube and dotter. Description, purpose, use.
 - (f) Engineering; same as for ensign with following additions:
 - (1) Describe what is known as the "Mechanical oil-burning system."
 - (2) Describe an internal-combustion engine.
 - (3) How is boiler corrosion prevented?
 - (g) Electricity; same as for ensign with following additions:
 - (1) Describe a secondary battery.
 - (2) What is a transformer and what is a converter?
 - (3) Describe any modern radio system.
 - (h) Military law; same as for ensign.
 - (i) International law; same as for ensign.

EXAMINATION FOR LIEUTENANT.

- (a) Same as for ensign and lieutenant, junior grade.
- (b) Same as for ensign and lieutenant, junior grade, with following additions: Navy Regulations, Chapters XII, XIII, XX, XXI, XXIII.
- (c) Navigation; same as for ensign and lieutenant, junior grade, with following additions:
 - (1) Practical method of compensating compass for deviation (rectangular method).
 - (2) Determination of compass error by; use of magnetic range; bearing of terrestrial object; bearing of sun.
 - (3) Latitude by sun reduction to the meridian (using formula $H=H' - at 2$).
 - (4) What is meant by "doubling the angle on the bow"?
 - (5) What is danger bearing?
- (d) Seamanship; same as for ensign and lieutenant, junior grade, with following additions:
 - (1) How moor in stream with mooring swivel? How clear hawse?
 - (2) How handle small vessel in heavy weather?
 - (3) What is a sea anchor? How improvise a sea anchor on destroyer, material on hand?
 - (4) Discuss laws of storms and state precautions necessary in handling a low-powered steamer; a high-powered steamer. (Plot track of storm; show by diagram.)

(5) What use may be made of oil in heavy weather at sea? Describe.

(e) Ordnance and gunnery; same as for ensign and lieutenant, junior grade, with following additions:

(1) Describe system of fire control.

(2) What are ex-caliber and sub-caliber attachments? Their object and how used.

(f) Engineering; same as for ensign and lieutenant, junior grade, with following additions:

(1) What are duties of engineer officer in making preparations for coaling ship, during coaling, and after coal is on board? What precautions should be taken against fire? What should be done in case of indication of fire in bunkers?

(2) Describe an ice machine as fitted on board naval vessels.

(g) Electricity; same as for ensign and lieutenant, junior grade, with following additions:

(1) What precautions are necessary to safeguard turrets from possible danger due to short circuits?

(2) If a ship's masts are destroyed, how would you arrange to send radio signals?

(h) Military law; same as for ensign and lieutenant, junior grade, with following additions:

(1) Who may order general court-martial?

(2) How is the court constituted?

(3) What are the limits of sentences by special court-martial?

(i) International law; same as for ensign and lieutenant, junior grade, with following additions:

(1) How are belligerent vessels interned?

THOMAS WASHINGTON.

Approved:

JOSEPHUS DANIELS.

The CHAIRMAN. Did you pass the examination?

Lieutenant HAVILAND. No, sir; I did not.

Senator WALSH. So you have not been offered any mark at all?

Lieutenant HAVILAND. No, sir.

Senator WALSH. And are not qualified to be an ensign after flying seven years and being raised from commanding officer to lieutenant commander?

Lieutenant HAVILAND. I have not been qualified for a position in the Navy of any character.

Captain WILLIAMS. Did you take the examination?

Lieutenant HAVILAND. Yes, sir.

Captain WILLIAMS. When?

Lieutenant HAVILAND. At the same time the others took it at Hampton Roads. The fleet had returned a few weeks before the examination. The fleet came back in April, and this examination was along the middle of May, something less than a month after our return.

Captain WILLIAMS. Do you know what you failed in?

Lieutenant HAVILAND. I would not be surprised if I failed in everything.

Captain WILLIAMS. You did not fail physically?

Lieutenant HAVILAND. I presume not. I see that my physical examination was passed.

Senator WALSH. Do you know what your fitness examination was, or your record examination?

Lieutenant HAVILAND. I was told unofficially, as this syllabus stated, that records would be counted as 30 per cent. I was told unofficially, which I have reason to believe was a true statement, that my record was marked at 3.8, which, on a scale of 4, is pretty high. However, they were marked, but the marks were not taken into consideration, as far as I can gather from my knowledge of some that were taken in. I do not think the records were considered.

Senator WALSH. Will you state what your opinion is of that examination for commissions in the regular Navy, particularly to become members of the flying corps—I call it the flying corps, but they say there is no such thing.

Lieutenant HAVILAND. I think the examination that was given to the reserves was too steep. I think that the Navy, as a service, is perfectly right in not wanting to induct people into the service as officers without any examination at all. The principle of the examination, I believe, is quite fair. I think that the scope of the examination—which is, as near as I can judge, practically on a

par with that given graduates of the academy under examination in grade at sea, line officers—unusually stiff, and I think it covers subjects that it was not necessary for Air Service officers to have a thorough knowledge of. This is a day of specialization.

We have already got the line going back to engineering duty. They did away with the Engineer Corps, and we are now starting to specialize in the service, but they still call it the line, because those people will not give up their right to command. That is the whole issue. They are straddling the situation. They have future visions before them of commanding a fleet at sea, which, of course, is quite right. A man wishes to rise to the top of his profession and does not want to be sidetracked, if he can help it. They are willing to specialize if necessary, but they want it, so that at any time they can go back in command. That, in my opinion, is the whole thing. They are straddling the issue, because they will not give up the command. They want a separate corps, as in my opinion they should, or if they do not, some one will take a hand and put aviation out of the Navy and put it into a separate force, and if they do that these people will either have to get out of the Air Force or pilot a ship at sea. But they want command. They can not see it and still carry on their air forces in the Navy, which, I think, too, is the best thing in the Navy. I am in favor of a separate corps, or force, because undoubtedly it would benefit all people like myself that are pilots. Personally, I think it would benefit them. It is not a healthy condition for the Navy. The Navy should have its own aviation.

The CHAIRMAN. It is now 12 o'clock and the committee will have to adjourn.

Senator WALSH. Mr. Chairman, I shall be absent to-morrow and I ask that the committee adjourn until Thursday morning next.

The CHAIRMAN. Very well.

(Whereupon, at 12 o'clock m., the committee adjourned until Thursday, April 13, 1922, at 10 o'clock a. m.)

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NAVAL RESERVE FLYING CORPS.

THURSDAY, APRIL 13, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m., in committee room, Capitol, Senator L. Heislser Ball presiding.

Present: Senators Ball (chairman), Keyes, and Gerry.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order.

TESTIMONY OF LIEUT. WILLIS B. HAVILAND, UNITED STATES NAVAL RESERVE FORCE—Resumed.

Senator WALSH. Lieutenant Haviland, I heard General Mitchell last night give a talk in the House Office Building on aeronautics to Members of the House of Representatives. I heard him say it took many years to train a pilot in aviation. I would like to have your opinion on that. Of course, a man is presumed to be improving all the time with age. I suppose that was the point he was trying to develop.

Lieutenant HAVILAND. It has been proven without doubt in our service, as well as in the Army and other services, that you can not induct pilots that have just qualified and have had but a few months' experience into a squadron and expect them to carry out operations or be trusted with planes and successfully accomplish the work that the older pilots in that unit are accomplishing.

In the fleet boats they have kept pilots as second pilots on joining the squadron for a year before giving them a boat, because they found they were losing their boats if they tried to give pilots of little experience—nine months or a year—a boat and expect them to carry out operations as would more experienced pilots.

That is a fact that has been very definitely proven. We have proved it in the loss of material and in some loss of life. In the ship-plane division of land planes, of which I have been a member for the last three years, during that period of three years we have had three Regular officers, graduates of the academy, that came to us as young pilots. One, Lieutenant Eekhout, was killed in an accident the first month. The accident was not due to a failure of the machine; it was the fault of the pilot.

In other words, I mean to bring out the fact that some accidents are unavoidable. If you take-off the ground, there are times when, if your motor stops or fails you are placed in a hazardous position with reference to houses or trees. This accident was not of that kind. His motor did not fail. He went into the ground, slipping into a turn. The other two regulars attached to this division during this period of three years had two or three accidents due to misjudging landings and inexperience, resulting in the loss of two planes to this particular division that I am mentioning, and they were relieved and transferred to other duties within a month. I say a month. In one case it may have been five weeks, but it was about a month.

Senator WALSH. I want now to call attention to what I understand to be one of the principal objections made by the authorities in command of the naval policy of the country on this question, namely, that aviators become superannuated early in life, and it is necessary for them to have a knowledge of line

duties in order to be of service to their country after their aviation period has passed.

In that connection I want to call attention, Mr. Chairman, to two communications by the Secretary of the Navy, and I am going to ask the lieutenant to explain them. One is dated January 25, 1922, and addressed to this committee in reply to a letter requesting the department's opinion upon my resolution.

The other letter to which I will call attention is written under date of January 30, 1922, five days thereafter, signed by the Secretary of the Navy and addressed to Mr. Thomas S. Butler, chairman of the House Committee on Naval Affairs.

The second letter relates to a regulation by the department to increase the pay of flying officers; that is, to maintain the extra pay that is given to flying officers. Of course, the Secretary of the Navy did not probably write either of these letters; it was done by department heads. But I want to call attention to the conflict that exists.

The last paragraph in the letter of the Secretary to this committee, dated January 25, is as follows:

"It would be an added and totally unwarranted burden upon the Treasury if officers were to be commissioned in the line of the Navy who were not qualified to perform all the duties of the line in which commissioned. Aside from the firmly established conviction and policy of the department that a line officer must be qualified for all the duties, engineering duties, deck duties, gunnery duties, submarine duties, or industrial or administrative duties on shore (it is important to remember that when an aviator becomes superannuated for actual flying there will shortly be no need for his services in the administrative or ground work of the aviation forces), and he must then be assigned to regular line duties or become a pensioner upon the Government.

"Sincerely yours,

"EDWIN DENBY,
"Secretary of the Navy."

I quote now from the letter of the Secretary of the Navy, written five days thereafter, January 30, addressed to Chairman Butler:

"In this connection attention is invited to the fact that aviation is bound to expand both in industrial and military connections, and that at the present time its personnel is composed mostly of younger men. These men as they grow older become of great value to this arm of the service, and in order to keep this talent it is necessary to compensate them for the risk involved in actual flying. Without the increased pay there is no inducement for older men to remain with aviation, and naturally they will be diverted to other lines of duty where the risk is considerably less."

Lieutenant, will you state what in your opinion is the number of years that a man may fly, with ability and capacity, to pilot an aircraft?

Lieutenant HAVILAND. I think the question of men aging in the Air Service is actually comparable to the age of officers in the line. A captain in the line has reached an age where he has greater ability than a junior officer, a lieutenant. He is able to administer and properly direct larger units of the fleet. A man at his age is not a man that would be sent out on a hazardous trip as captain of a submarine. That is particularly a command for a young man, a man that if his life were sacrificed, we will say conscientiously, would not be as much loss to the service.

I think that aviation is absolutely following out those lines. I believe as a man continues to serve in aviation, his knowledge, his ability to direct the operations of the younger pilots, and bear responsibility, is comparable to the commanders of the fleet afloat. In other words, he has the same opportunity.

The one function of expecting a man of that age to go out in a pursuit plane and attack the enemy, I hold is on a par with sending an older, senior officer in command of a submarine in a hazardous operation, which should not be undertaken at all. He certainly has gained greater value in service.

In using these younger and inexperienced men, your efforts will be dissipated, you are going to lose those pilots, you will lose your equipment, and that combined loss, as your loss increases, means the loss of the air, the loss of properly carrying out the operations that are necessary to gain information, to keep the enemy aircraft away from your objective, which is the fleet, your boat.

I thoroughly believe I am not an extremist. I believe that the capital ship represents the backbone of planes operating at sea, as the Cavalry and

the bayonets represent the backbone of the land forces—properly supported by the auxiliaries, chemical warfare; in the case of the Navy of screen ships, cruisers, submarines, aircraft.

If the capital ships are on a par, or if the Infantry is on a par, the strength and efficiency of the auxiliaries is certainly going to win the day; there is no question about that. The side that is driven out of the air, other things being equal, is going to lose.

I am not extreme in thinking that in a short time we are going to do away with capital ships, but I believe this, that well within our lifetime, say 15 or 20 years, the air force in this country and in all other countries will be on a par with the Army and the Navy. It will be a third arm.

In other words, I believe we are going to have as many people in the air force in 20 years as are now in the Army and as are now in the Navy.

Senator WALSH. Is General Mitchell flying now?

Lieutenant HAVILAND. Yes.

Senator WALSH. How old a man is he?

Lieutenant HAVILAND. I assume he is about 45. He has had some 24 or 25 years' service.

Senator WALSH. And he still flies?

Lieutenant HAVILAND. Still actively flies; pilots himself.

Senator WALSH. Is there any limit to the number of years a man can be actively a pilot, in your opinion?

Lieutenant HAVILAND. There should not be. A man should not lose the ability to take the air and fly to a greater extent than he should lose the ability to ride a bicycle. There is no question that a man who has not lost ability to walk and use his sight, at 70 years of age, should be able to ride a bicycle. He should not go in any bicycle races, but if he has been a bicycle rider for a good many years and had engaged in races he would immeasurably know more about the game than a youngster and would be able to properly direct them and make a difference in their performance.

Senator WALSH. Do you look forward to seeing an admiral in aviation in the Navy?

Lieutenant HAVILAND. I look forward in 20 years to seeing a good many of them.

Senator WALSH. And there will be corresponding ranks in the aviation branch of the Naval Service?

Lieutenant HAVILAND. Aviation is going to lead the Navy. It is a question of time, that is all. It is held down now by senior officers that are not going to prejudice their careers by a divergence, going into something new. I think justly so, too. They have reached an age where their service is more valuable to the Navy in the line. They know it. Just at this present time they are straddling the issue. They do not want to depart from the line, and I do not blame them.

That does not help the situation any, though. In fact, quite to the contrary. They want to be able to retain their place in the line. And they find that there is so much that is new and strange about aviation that they did not get the grounding in at the age that men are getting to-day, so they go back into the thing that they have been brought up in for 20 or 30 years and in which they can maintain their positions without embarrassment. They are not up against the problems there about which they do not know anything, because their lives have been devoted to the solution of their problems and in carrying them out.

Senator KEYES. In referring, a few moments ago, to a third arm, I understood it to be your belief that we would have an arm independent of the military and naval forces?

Lieutenant HAVILAND. Oh, yes; we are coming to that, to the air arm, separate from the Army and Navy. Great Britain is a little premature. When anything new is proposed there is always a reaction, and there has been a strong reaction since the war, and the unfortunate part of it is the reaction has hit the service of air, that was so new. It expanded so much more in the five-year war period than it had in the previous 10 or 12 years that they were left with a tremendous burden of equipment that would wear out in a short time. To try and replace that and keep it up was a very expensive proposition; in fact, it could not be done; and the burden of that expense has called down a great deal of criticism on the air force, and I think unjustly, because it was a war circumstance that pushed them up into the position where they had an enormous expense. They had equipment that was not

at all comparable to Army equipment, that would last for several years. It was equipment that would age very rapidly. So that unless they received stupendous amounts of money to keep up to the standard they lost in the course of two or three years practically the value of all the equipment they had, except their trained personnel.

The CHAIRMAN. It is your belief you would get better results than if aviation was a part of the Navy and a part of the Army as it is now?

Lieutenant HAVILAND. I think so, at this particular time. I think we show they are all holding up the line; in the Secretary's letter it said that the officers should be qualified in the line.

The CHAIRMAN. Suppose you let me ask you a few questions which will bring out the point I want. Then you would be opposed to spending a lot of money for aviation for airplane carriers?

Lieutenant HAVILAND. No, sir; we have got to have air carriers.

The CHAIRMAN. You could not have two commanders of two forces acting together at one field. In other words, you could not have a fleet composed part of battleships and part of aviation, with aviation carriers as a part of the fleet under different orders and under different management.

Lieutenant HAVILAND. That would be the same—on a par with the same question that came up in the war. We had different units operating together. The Navy broke into the Army game with bombing, which was a ridiculous affair that they should never have undertaken.

The CHAIRMAN. I can not conceive of the Army and Navy conflicting—as certainly a part of a fleet under different divisions would conflict.

Lieutenant HAVILAND. I do not think there would be any more conflict, sir; than with the proposition of the Army as it is now—different corps in the Army. It has got to be coordinated. That is something that would have to be worked out. That is one of the problems as to the command and the staff work.

The CHAIRMAN. It is useless for us to spend large sums of money with carriers as a part of the fleet unless that is going to be the policy of the Navy.

Lieutenant HAVILAND. Well, we have got to have the carriers. England has her carriers, and every nation will have them.

The CHAIRMAN. But a carrier with, say, a fleet of its own, would be very different from a carrier that would be a part of a general fleet, in my judgment.

Lieutenant HAVILAND. The question of command of an operation at sea is not a difficult one at all. In this last war, and in every war, and even in the Army, we have had to combine different units that are totally different. You might say that if a general at the head of the Army has been brought up in the Cavalry or has been brought up in the Infantry, what does he know about operating tanks or chemical warfare, which is a new arm entirely? Chemical warfare and tanks or any new auxiliary operate or function to conform to the successful result of the general operation: and there is no reason why the sea-plane could not do the same thing.

The CHAIRMAN. But those forces are under the control of the Army, part of the personnel of the Army, and under the management of it.

Lieutenant HAVILAND. You have combined allied commands abroad. It has been practically the same thing in the war. I do not see how—with a proper scheme of operation and staff work—that is going to be a serious question at all. It is going to be one of the problems, and there are many problems.

Captain WILLIAMS. Would it be of interest to state the experience of the Navy in the past on this question? For many years, in fact, ever since navies were formed, these questions come up, and where we differ in opinion as to their paramount importance.

In my recollection I can remember special arms rising from nothing, and let us say they did become very important. Now, the question becomes one of training a personnel for those arms, the submarine, or a specialty like the radio, or like electric-controlled battleships, or a dozen others that could be mentioned.

We have tried in the past every method that we knew how. I have been a specialist off and on for three or four different things; and, then, I had to drop them and go back out of the specialty, and that is everybody's experience who lives the life we do. It seems to take a natural course something like this. In general terms it seems to be the experience abroad. I do not say it is going to take this course, but I am simply giving the committee the benefit of what experience I have had.

Let us take an instance I have in mind of the necessity for a very highly developed ordnance expert. I could not do it; the average officer could not do it, because it was specialized. We have tried in the past, under circumstances like that, to get a man, educate a man, train a man, for a high-class ordnance expert.

The Army's problems are different. We have not been satisfied. He has worked his solutions to a perfect answer, worked the problem to a perfect solution, from his point of view, but when we got out on deep water we could not use them, because he did not know exactly what our conditions were.

Therefore, to cut a long story short, my opinion and that of a good many others is that, when you have specialized in a service like ours, the personnel should specialize after a certain amount of general training, after a certain amount of team play.

That brings in a totally different set of problems and a set that we have always run across. We first play with the team, get a general idea of the whole game; then a certain amount of specialization, and then a return.

In general terms that is the best answer that I know of to the navies of the world that have produced these specialties which arise from time to time.

The CHAIRMAN. In other words, it is your judgment that success with the Navy or the Army depends more upon team work than a lot of specialists composing that?

Captain WILLIAMS. I can speak for the Navy, and I am only an observer of the Army. Their problem is quite different from ours, totally different.

The Navy is similar to the Army in certain broad lines, but its mission is totally different. The mission of the Navy is to be ready to-day, to be ready to-morrow, and broadly speaking, I do not know whether that is the mission of the Army or not.

Our fleets have got to be able to fight before nightfall, with the best of equipment and personnel they have got. Of course, they must bring in a large number of recruits; they must get the best men the country has, and we did get them. The best men in the country jumped into the service the day the war was declared. That must be done again. But it is not a training proposition for the Navy. The Navy may get thoroughly well licked before it has time to train anybody. That is, perhaps, off the subject.

In electricity, as it came out; in submarines, as they came out; in high-powered gunnery, as it came out; in long range torpedoes as they came out, the question of deep-sea scouting, of large-sized battleships, of a thousand other problems which came up, like control, the personnel must have intimate personal charge of the work. That is about the experience, as I see it.

Lieutenant HAVILAND, I would like to ask a question of Captain Williams. You explained the intricate tactics that are involved in handling ships afloat. You mentioned an ordnance expert. I do not know his rank, but I assume he is a captain in the line. Under the present situation of having a line officer, it might so happen that he would be detailed to command the fleet air force. That might be. Do you believe that this ordnance expert, by stepping into command of the fleet air force of the Atlantic Fleet, we will say, is competent, by reason of his experience? I do not mean competent personally, because it is assumed he undoubtedly is, but I mean as competent to carry on this operation as an officer in charge of a fleet air unit, with all it involves in the air, as you have expressed it for surface craft tactics, defensive measures for the fleet, reconnaissance, control of spotting the fire of the fleet, which after all is the reason the fleet goes out. Its main purpose is hitting the enemy and if possible to avoid being hit.

That was the question. We are having officers put into our service, in charge of us now, very similar to your ordnance expert, to control our aircraft operations with the fleet afloat, which is perhaps more vital than shore establishments.

Captain WILLIAMS. As to the question of command, let us depart from the air force for a minute and say, is this ordnance expert capable of commanding as an adjunct to surface craft a submarine detachment. I am not getting off the subject, but I am trying to keep on the plane, as I understand it. We have maintained for many years—I think since 1885 or 1886—a college at Newport, which teaches us to command, among other things. The Army has the same thing. The method of commanding the various naval units is a science, is a study in itself, and it goes down and brings you through a great many subjects, such as how much authority will you leave to your subordinate, what authority will you leave to the commander of your airplane division, how will you exer-

cise it over him. You may not be a pilot, you may not be a flying officer, but at the same time you, as the commander in rank, have got to study the psychology, the strategy, and tactics of commanding a weapon, of many weapons that perhaps you can not use in your hands yourself. You may not know what is inside of a long-range torpedo; you may not know the possibilities of that weapon as distinguished from the possibilities of the gun, of the airplane, of the submarine, of the destroyer, of the many things that are placed under your hand.

I submit in this discussion that the question we are asking is, would I, at some future date, or some man who will succeed me, be better qualified to command a fleet composed of battleships, destroyers, submarines, airplanes, etc., had I had experience in planes; perhaps I would and perhaps not. I think it is highly probable that I would be better qualified. I think I probably would be better qualified in the future had I had had experience in submarines, had I had experience in destroyers, had I had experience in many things. As things go now, I doubt if it is possible. I have never served in submarines. I was with the first submarine—Mr. Lake's boat; I have been with torpedoes, I have been with ordnance, I have been with electricity, I have been with many of these things quite superficially.

I have sent for Captain Mustin, who is one of our flying officers, and he will take up this question with the committee and give his ideas of the single air force policy of the department.

Lieutenant HAVILAND. May I ask the age of Captain Mustin. It is about 48?

Captain WILLIAMS. Thereabouts.

Senator WALSH. Is he an active flier?

Lieutenant HAVILAND. Yes, sir; and a pilot. I believe Captain Erwin qualified, and perhaps Captain Steele—they qualified in a sense; but certainly they have not done the piloting that Captain Mustin has. Off hand I would say that Captain Mustin was the only senior officer of the Navy as a pilot, because I think that Captain Erwin and Captain Steele would not engage in piloting without another pilot along as assistant pilot; whereas I think Captain Mustin would, and certainly General Mitchell flies himself all over the country. With General Mitchell running ships is Captain Oakem (?), who was one of the first to start, in 1910. He is a man of 43 years of age, and is continually flying across the country. Just like he would come back from Dayton, which is a usual trip, a little over 400 miles. He made more than a hundred trips between Langley and Bolling Field, and Bolling Field and Langley, last year. I believe the general made nearly that many himself during the bombing operations last year.

Senator WALSH. General Mitchell participated in the bombing operations, did he?

Lieutenant HAVILAND. Yes, sir; flying himself. Godfrey Cabot, of Boston, is 45 years old, and he is a pilot. He is a civilian.

I have been told these are exceptional men, implying that where they had won, over 99 would fail, but I do not believe it. I believe they have exceptional qualifications, but the air game is not old enough to have developed many men of their age that can still continue to fly.

The CHAIRMAN. Is the mental strain when flying sufficient, in your judgment, to shorten life materially?

Lieutenant HAVILAND. No, sir; I do not believe it is. It depends a great deal on temperament. The game is a great deal harder; but a man who has continued to fly over a period of several years, I would think he was good indefinitely, so long as he retains his physique and was able to function properly.

The CHAIRMAN. The reason I made the query is that the question came up in the reorganization bill, in connection with the Civil Service Commission, relative to the retirement age in different branches of the Government. There are certain branches of the Government where the testimony before that committee was such that the duties would age a man very materially and he would have to be retired much earlier in life.

Lieutenant HAVILAND. Yes, sir. I do not believe that aviation would hasten that. It might, slightly. It is a known fact that some people, after they have qualified as pilots in the air, due to temperament or due to accidents they have had, leave the game; that is, stop flying. In my opinion, observing and being in the air seven years, the very large majority of those that quit the air game do so the first year; that is, a short time after they have qualified. They are stimulated while qualifying, they think they are accomplishing something which is tremendously unusual, which it is not; and they are buoyed up with the sense of feeling that they are one in a million, which carries them on. Then

they have a very bad accident. Perhaps they are hurt, perhaps some one with them is hurt or killed. With some temperaments, they will quit. That is, quitting is merely a loss of confidence. If a man loses his confidence he had better get out of the air game quickly, because he is literally riding for a fall. There is no question about that. I think that a man who flies, I will say, a few years, perhaps he is a fatalist, perhaps not, but he is less apt to quit than a man in the first year, I would think, from my observation of a great number of pilots. The older men do not quit, as a rule, I mean. Perhaps in individual cases there may be reasons why they should, perhaps to go back into some other line, or something of that sort.

Senator WALSH. Calling attention to this statement in this letter which I suppose was prepared by the Bureau of Navigation for the Secretary of the Navy, "It is proper to remember that when an aviator becomes superannuated for actual flying there will shortly be no need for his services in administrative or ground work with aviation forces." What is the time or the period, in the opinion of the Bureau of Aeronautics, when an aviator would become superannuated?

Captain WILLIAMS. May I ask Captain Mustin, who is the aviation expert?

Senator WALSH. Yes.

Captain MUSTIN. I do not think the bureau has any opinion yet, sir. We have not any definite data to decide when a man should stop on account of age. Altogether, I think it depends on the individual.

Senator WALSH. Would you say when a man becomes superannuated for actual flying there would be no need of his services in any administrative or ground work of the aviation forces?

Captain MUSTIN. No, sir; I would not say that.

Senator WALSH. Of course, it is preposterous to say that a man who has flown for 20 years is useless as an administrative officer or for ground service in aviation, is it not?

Captain MUSTIN. I have not heard that expression before.

Captain WILLIAMS. What I would like to know is, Would there be a proportionate number of ground officers or older officers required in the administrative direction of any flying activities that we can foresee in the future—in the Navy, not on shore? I presume in the near future your naval aviation, if that is the development, will be attached to the fleet or to the ship, or something of that sort. A certain number of men each year, we will say, from temperament or something else, become superannuated. Will the activities on board the ships to which the naval aviation is attached provide a place for them?

Captain MUSTIN. Actually aboard the ship I think there is very little room for the superannuated flier. Perhaps a few staff billets; but there is a great deal of room for those people on shore in technical work.

Senator WALSH. Exactly.

Captain MUSTIN. Production and inspection.

Senator WALSH. And commanding large ships where the commanding officer does not do the piloting.

Captain MUSTIN. No, sir; I would not recommend having as commanding officer of a large ship a man who was not able to fly the ship himself.

Senator WALSH. Do not your regulations now prevent a commanding officer of an air station from flying?

Captain MUSTIN. No, sir.

Senator WALSH. Are commanding officers of air stations supposed to fly?

Captain MUSTIN. When they are qualified naval aviators they are required to fly to keep in condition. One of our largest stations is commanded by a naval aviator—San Diego, Commander McCreary.

Senator WALSH. Some are not commanded by flyers.

Captain MUSTIN. Some are not, because there are not enough in aviation of sufficient rank to take care of them all.

Senator WALSH. It is your opinion, is it not, that it would be a better situation if all commanding officers of aviation stations had during their lifetime had actual flying experience?

Captain MUSTIN. A great deal depends on the individual, I think, sir. You can get a qualified flier who will make not as good a commanding officer as an officer who is not a flier at all. You take an officer who is not a flier, and he has excellent administrative ability, cooperates well with his juniors, takes advice on technical matters, flying matters, and he will make a better com-

manding officer than a flier who has no executive ability and no ability to handle officers and men.

Senator WALSH. Captain, may I ask your age?

Captain MUSTIN. I was born in 1874; 48.

Senator WALSH. You are an active flier now?

Captain MUSTIN. I have been flying for 10 years.

Senator WALSH. And you are still flying. Do you consider yourself superannuated?

Captain MUSTIN. No, sir. I took the Army course in acrobatics and cross-country work, two years ago, and took the Army physical examination, and I passed that and was told that I was not superannuated.

Senator WALSH. Do you consider Lieutenant Commander Haviland superannuated?

Captain MUSTIN. Not at all.

Lieutenant HAVILAND. I just made the point, Captain, that I thought you were the only senior officer in the Navy that was qualified as you have yourself expressed it. I mentioned Captain Erwin and Captain Steele—I do not know whether you were in the room then or not. I said at that time I did not believe they were qualified in the sense that you were; they may have qualified, but there was a degree of qualification, whereas you were a senior officer that was actually engaged in flying and had been through this flying that we have been discussing that the youngsters have come up in, but they were not. That was the point I just made.

Captain MUSTIN. I do not know what flying experience either one of those officers has had, from my own knowledge.

Lieutenant HAVILAND. The point I brought out, Captain, was that they had had experience in the air, and that while I am not certain, I am under the impression that they had qualified, but I believe that neither one of them would engage in an operation itself in an aircraft. In other words, they have been in the air and they have flown ships, but they have not accomplished flights by themselves, so far as I know.

When aviation was started in the Army—this is not entirely irrelevant, although it does bring up the Army—they found a great deal of friction was created in their Air Service organization in the Army due to the fact that specialists had been put in to do detail engineering duties, officers as you mentioned that were qualified in administrative duties, were given commands because of their administrative ability, and it led to friction. They were not fliers, but engineering officers and ground officers. In fact, it led to so much friction that the Army issued an order that every officer in the Army Air Service must be qualified in the air. He must either be qualified as an observer, a pilot of lighter-than-air, or a pilot of heavier-than-air. They even went so far as to qualify medical officers, which is quite a departure from the line duties of either the Army or the so-called corresponding line duties of the Army. They qualified air surgeons or flight surgeons as pilots. The medical end has rather been considered out of any commandant duty whatever. I am citing that as an extreme case, the Army going even so far as that, because they have found in their observations there was too much misunderstanding and lack of sympathy, on the part of people that did not go in the air that did not get the psychology of the people that were going into the air. There is something to that. They did not appreciate what they were doing; the nervous strain that they were under at times, and it led to friction. The only way to remove it was to qualify every officer in the Air Service of the Army irrespective of the duties that they had on the ground, so that even though the officer was acting as an engineer officer he was still qualified to go in the air.

I think that is still in effect, and I think that an officer detailed from another arm of the service in the Army, Cavalry, or Coast Artillery, who after a given time, six or nine months, or it may be a year, has not qualified, must leave the Air Service of the Army and return to his branch, Coast Artillery, Field Artillery, or Cavalry. I believe that is still in effect, unless it has been rescinded lately.

Senator WALSH. Quite the opposite policy that has been pursued by the Navy, from the testimony here.

Lieutenant HAVILAND. No, sir; I think Captain Mustin expressed it in the fact that the air force in the Navy is a unit organization. There are very few officers in it of sufficient rank to occupy those commands, which goes back to the question of those billets being held in the future by people that are now in the service. That is the point.

Senator WALSH. It is true that in the Navy the commanders of flying squadrons, flying stations, and ground work are not fliers themselves.

Lieutenant HAVILAND. Are not fliers of necessity; yes, sir.

Captain MUSTIN. I beg your pardon. The present law is that no flying unit shall be commanded by anyone except a flying officer. We recently got an interpretation from the Judge Advocate General of the meaning of "flying officer," and he said a flying officer is a duly qualified naval aviator; and we have no squadrons commanded by any other than naval aviators.

Senator WALSH. Have you a sufficient number of those commanders?

Captain MUSTIN. Yes, sir; we have enough for the number of squadrons we have now. Unfortunately some of those officers of higher rank who have recently graduated from Pensacola are senior to junior officers of more experience. When they graduated from Pensacola and were assigned to the flying air squadrons on account of their rank they have naturally had to take command over officers that had more practical experience.

We recently arranged with the Bureau of Navigation to correct that difficulty by holding back the qualification of all naval officers graduating from Pensacola until they have had one year's experience in the fleet. In other words, they go to the fleet in the status of students, and regardless of their rank they will have to serve in a subordinate capacity until they get a year's actual operating experience.

Senator WALSH. Lieutenant Haviland, I would like to ask you now about what you have observed in reference to opportunities being given in the Navy to regular line officers for more examinations than one in case of failure, in contrast with the treatment given to reserve officers having only one examination.

Lieutenant HAVILAND. I have no knowledge of the numbers of regular officers that have been up for examination for promotion in grade, during this last year and a half. But I do know that some officers who have so gone up for examination have failed in their examination. I do not know the number.

Senator WALSH. And they have been given another examination.

Lieutenant HAVILAND. Yes, sir. I believe some have been given more than a second examination. There is a penalty provided for officers that fail in an examination. I believe that in some cases, some way, that was overcome, that some officers were not penalized for failure in examination. I make that as a statement qualified further by the fact that I do not know the numbers nor the officers, and I would think if this point is taken up it could be taken up altogether as a point rather than as individuals, because I think to bring individual names into a discussion of this kind is unfair.

The CHAIRMAN. By penalized, do you mean reduced in rank?

Lieutenant HAVILAND. No, sir; not in rank; but loss of numbers, of promotion. All officers in the Navy are given a number. It originates with their position in their class when they graduate from the academy.

The CHAIRMAN. It would result, though, in lack of promotion in regular order.

Lieutenant HAVILAND. Yes, sir. If they lost 50 numbers, I believe that 49 or 50 that they were senior to would be promoted before they were. I believe, however, Captain Williams is much more qualified to explain the principle of regular examinations for regular officers in the Navy, much more so than I am.

Senator WALSH. It is a fact that it is not an uncommon thing for regular officers seeking promotion to be given more than one examination and sometimes more than two.

Lieutenant HAVILAND. I believe they are all allowed a second examination by law. I do not know about the third examination—I mean a second reexamination.

Mr. SCHUYLER. If they fail on a second examination they are dropped from the service.

Lieutenant HAVILAND. Is that the law?

Mr. SCHUYLER. Yes.

Senator WALSH. If you know what is the character of the examination for promotion, how long does it take to hold the examination?

Lieutenant HAVILAND. I do not know that, Senator, but I have known of officers taking an examination for promotion in their grade of lieutenant in a day. We had seven days and a half pushing a pen.

Senator WALSH. Have you anything to say about the length of the examination, particularly in aviation?

Lieutenant HAVILAND. No, sir. To induct officers into a service, to arrive at an estimate of their capabilities, I think undoubtedly would require a longer examination than an officer who had passed several examinations since his graduation from the Naval Academy. I do not believe that that was particularly unfair. I think my sense of injustice has not become an obsession; I am not warped about it, but I believe that some reserves were not properly given a chance to prepare. I think, knowing their lack of knowledge of the service, and being engaged in the duties that they were, actually flying, particularly some that were with the fleet, but were not with the fleet in the sense that they could engage in studies. For instance, this last year, when the fleet was away, some of the fleet units were on the beach, dependent on themselves, with no regular officer, except the commanding officer, who was not inclined to conduct the schools or classes.

Senator GERRY. Did I understand you to say this examination took seven days?

Lieutenant HAVILAND. Yes, sir; seven days and a half.

Senator GERRY. How many hours a day?

Lieutenant HAVILAND. I believe six hours a day.

Senator GERRY. Six hours a day for seven day and a half?

Lieutenant HAVILAND. Yes, sir. It was comprehensive, to say the least.

Senator WALSH. Is there anything else you want to say about these examinations?

The CHAIRMAN. That was all written examination?

Lieutenant HAVILAND. Oh, yes, sir; none of the examinations were oral.

Captain WILLIAMS. This was competitive?

Lieutenant HAVILAND. Well, it was intended to be so.

Mr. SCHUYLER. Officers other than class 5 reserves are required to take a seven-day examination.

The CHAIRMAN. Was that ample time for you to answer all the questions?

Lieutenant HAVILAND. It was for one who is accustomed to examinations, I believe. I do not think it was for the reserves who took the examination, and I explain that in this way: A man who has finished four years of college or four years at the Naval Academy has constantly during that period prepared himself for examinations. He has acquired an ability to cram for examination, as they call it. He has been trained for it. He knows what dope to cram, and write it off and get it in good form—at least that if he does not know the answers. He is used to having examinations put before him. He knows how to get the best out of it, to utilize his knowledge to the best advantage.

He further has had examinations after leaving the academy, and to take an examination of this kind, of seven days and a half, he would know how to tackle it, what to hurry up on and how to write it out and make a favorable impression.

I think most of the reserves did not. I think probably the general impression of their papers was very bad. They were apt to stop on one subject, spend too much time on it, while the clock moved on, and they were unable to write the answers to several more questions. The length of the examination worried them. There was a certain mental hazard about it, and as soon as they became confused they lost time. In these examinations you had to bat right out; there was no question of waste time with them.

The CHAIRMAN. Were you given any more time if you desired it, or was there a time limit?

Lieutenant HAVILAND. No, sir. The periods were limited. All papers had to be turned in at the end of each period.

Senator GERRY. I would like to ask Captain Williams if that is the usual period for examination for promotion for one grade to another?

Captain WILLIAMS. No, sir.

Senator GERRY. The examinations are not as long as that?

Captain WILLIAMS. Some time ago, before the war, the examination from junior grade took about six days. That was the normal time. During the war, of course, the situation was different, but we are getting our machinery back to normal. I would say that I am going to have the head of the examining board down here, and he can testify to you directly.

It was what we tried to make a competitive examination, a competitive examination for 1,650 men, a very large and a very unusual undertaking. It was perhaps for that reason that this examination was made to cover so many subjects, and to make it so long.

Senator WALSH. Do you know how many hours have been given to these examinations since the war? You spoke of the situation previous to the

war. How many since, do you know? This is referring to Senator Gerry's question.

Captain WILLIAMS. Have you any data?

Mr. SCHUYLER. No, sir.

Captain WILLIAMS. I will have Admiral Bryan here, and he can tell you exactly.

Senator WALSH. Is there any doubt about it being a matter of a few hours?

Captain WILLIAMS. There may have been some cases during the war, or perhaps immediately after the war, in which the necessity was great, and the result was evident, in which it may have been reduced. I doubt if it is often a few hours. I was told by one man here to-day that they had examinations for a week.

Senator WALSH. Are the line officers in the regular Navy given an opportunity for reexamination in case of failure?

Captain WILLIAMS. Yes, sir; that is the law.

Senator WALSH. But that did not apply to the reserve officers?

Captain WILLIAMS. No, sir. And neither is that true of midshipmen entering from the Naval Academy.

Senator WALSH. Will you give us for the record the examining board that had charge of these examinations?

Captain WILLIAMS. The names?

Senator WALSH. Yes. Who was the chairman?

Captain WILLIAMS. Admiral Spencer S. Wood.

Senator WALSH. Is he retired?

Captain WILLIAMS. Yes, sir.

Senator WALSH. How old a man is he?

Mr. SCHUYLER. He is about 57.

Senator WALSH. Fifty-seven and retired?

Mr. SCHUYLER. Yes, sir.

Captain WILLIAMS. He reached the age of 56 two years ago. He is about 58.

Senator WALSH. How many were there on the examining board?

Mr. SCHUYLER. There were five.

Senator WALSH. Were they all old men, or men who were about to be retired?

Captain WILLIAMS. There were at least three captains.

Senator WALSH. Let us not guess at it.

Captain WILLIAMS. I will get that data for you.

Senator WALSH. We agreed the other day that there was nobody from the aviation service on the board; there is no doubt about that.

Captain WILLIAMS. There were aviators marking the papers.

Senator WALSH. Marking the aviation papers?

Captain MUSTIN. I do not know just what they marked.

Senator WALSH. What were the names of those who marked the papers?

Captain MUSTIN. Lieutenant Commander Spencer was one of them. I do not know the others. I was not here.

Mr. SCHUYLER. I think it would be better to get the official records on that.

Senator WALSH. I think we are wasting time on it now until you get the official records here.

Mr. SCHUYLER. Yes.

Senator KEYES. One of the subjects in the examination was seamanship, was it not?

Lieutenant HAVILAND. Yes, sir.

Senator GERRY. What sort of an examination was that? In a brief way, was it an examination such as a man who had served a number of years at sea would naturally be expected to pass, or not?

Lieutenant HAVILAND. Yes, sir; I believe that one who had served with a fleet or who had served afloat should be able to pass it. They would certainly know all of the practical seamanship. Unfortunately, I think some types of men are not able to express intelligently what they actually know. I think as to many ex-service men, enlisted men, that had been temporary officers during the war, that was essentially so. I believe in such a subject as seamanship they would actually be thorough seamen in the sense of knowing all that these questions sought to bring out, whereas their explanations of them on the paper might be totally at variance with what would be the correct answer.

The CHAIRMAN. In your judgment, were they practical questions?

Lieutenant HAVILAND. Yes, sir; they were practical; and some questions that required answers that if not properly given would not, perhaps, be the

right solution, although the man might know the practical solution of it. I do not think the question of seamanship was technical. It consisted of the rules of the road, lights burned by ships at sea, tows, handling of ships in a stream, turning a ship around, and mooring a ship. They were things that anyone who had been to sea aboard ships should know.

Senator KEYES. I do not know that I am sure about this and I would like to know: Do I understand you to say you entered the Navy at the age of 17?

Lieutenant HAVILAND. Yes, sir.

Senator KEYES. And served how long?

Lieutenant HAVILAND. Four years.

Senator KEYES. That was my recollection, but I wanted to be sure.

Lieutenant HAVILAND. I had had a year in college, finished my freshman year at 15, cut English, and was a sophomore at 16.

Senator KEYES. What rank did you have when you left the service after four years' experience?

Lieutenant HAVILAND. A third-class electrician.

Senator KEYES. A third-class electrician?

Lieutenant HAVILAND. Yes, sir; I was discharged before I was 21.

The CHAIRMAN. You entered as what?

Lieutenant HAVILAND. I entered as a third-class electrician. I will take exception to that; I did not. I entered as a hospital apprentice, and I was rated a third-class electrician in about three months.

Senator KEYES. Had you had experience in the study of electricity before you went into the Navy?

Lieutenant HAVILAND. No, sir. First enlistments in the Navy are apt to be peculiar. In going to a recruiting office to enlist the medical officer thought I would make a fine hospital apprentice, and so I enlisted as a hospital apprentice, but I soon got out of it.

Senator WALSH. What occupation are you going to enter when you return to civilian life?

Lieutenant HAVILAND. I am going with a corporation in New York that is marketing a patented device to make paper cups, the sanitary cups that you see in Pullman cars, in hotels, and things of that sort.

The CHAIRMAN. I would like to ask one question that I imagine Captain Williams will have to answer:

In case the commander of a ship is not a line officer, who gives the orders?

Captain WILLIAMS. There is only one.

The CHAIRMAN. Do you have line officers on the ships?

Captain WILLIAMS. We have line officers on every ship with the exception of the hospital service.

The CHAIRMAN. For instance, in the case of the Medical Corps, there would be a higher ranking officer who has charge?

Captain WILLIAMS. A line officer must command, except for some time when we had hospital ships in the Navy, in which case by a technical term the medical officer was in command.

The CHAIRMAN. That is the case, I imagine, I have heard about.

Captain WILLIAMS. That has ceased to exist. The reason that arrangement had to be changed was this. A large hospital ship was on the Pacific coast in a fog. The navigating line officer was on the bridge busily engaged in trying to pick up a fog horn and the whistle of a steamer close aboard. The medical officer, tactically in command, responsible in every way, but unfamiliar with these simple things of the sea, undertook at that time to demand, and insisted upon demanding, a report from this officer who was busy navigating, engaged in an operation. Well, they court-martialed the navigating officer, and in accordance with law and regulations he was guilty for having stopped navigating and going to make out this report for the man who was commanding. We then had to change the arrangement, so that only a seaman can command a ship.

Lieutenant HAVILAND. May I state one exception, Senator, when a line officer may be senior on a ship but will not assume command. It goes back to specialists in the line. When the old Engineering Corps was done away with as a corps, apart from the line, a line officer performed the duties of engineer officer as a part of his other line duties. The tendency, after some few years of trying that out, was to get back to specialists and line officers could elect to specialize in engineering duties, and so long as they made the grade they were kept in engineering duties.

It may so happen on a ship in the fleet that in the absence of the captain, commanding officer of the ship, and the executive, who in all cases is next senior

to the captain, the chief engineer of the ship may be the next senior line officer, but he will not assume command of the ship, and it will devolve, perhaps, on the gunnery officer, who may be of corresponding grade but slightly junior.

I bring that out to show that although engineer officers were in the line, it shows the tendency to specialization. Also the sending of unit officers for post-graduate practice in the Navy, in engineering and technical subjects, the tendency seems to be toward specializing and keeping it in the line.

The CHAIRMAN. The answer to that question would suggest this to me, that it is very necessary, if you have a fleet composed of airplane carriers, as the fleet will be in the future, that those in charge of aviation, in charge of the airplane carriers, will have to be line officers to have command; is not that correct?

Captain WILLIAMS. That is the rule, that is the experience, that is the history. It is the same thing. We have had two or three generals in history that have been very successful admirals, but it is not the rule.

Senator WALSH. Another question occurs to me, Lieutenant Haviland. Suppose all the reserve officers of the flying corps had dropped out of the service after the armistice, what would have happened to the flying corps of the Navy?

Lieutenant HAVILAND. Well, sir, I think there were so many reserve officers in aviation that that circumstance did not occur. If it had, I think the Navy Department would have refused to let some of them go, because in the two years following the war, I believe, the senior officers of the Navy will agree that aviation would not have functioned if they had lost all the reserves; it could not have functioned to the extent it did, and hardly would be able to function at all then perhaps. Except by continuing training and starting to build up the corps, induct more regular officers into it, they could not have engaged in operations. I am quite certain of that.

Senator WALSH. To what extent have reserve officers contributed to making the Flying Corps what it is to-day?

Lieutenant HAVILAND. They carried the entire burden of the war flying. The commander of the air forces abroad, Capt. Hutch I. Cone, was a very distinguished flying officer, very efficient, and an officer of great value to the service.

He issued an order which I have always had some doubt, in my mind, as to whether he read it. I think some one put it over on him. It was that commanding officers of naval air stations would not engage in war patrols. I was threatened with a court-martial in Italy for leading my squadron over Paula. I think I was accused of insubordination because I led them again, after I had been told not to, for the reason I was the only one at my station of my rank, no lieutenants there, some 38 youngsters in the grade of ensign, one junior lieutenant 20 years old; and I felt it my duty to lead that.

The CHAIRMAN. I have a question I want to ask, if I can put it in words. I am like you about some of those who take examinations. I know what I want but I don't know if I can express it so that you will be able to get my meaning and be able to make a reply. We had a Delawarian who was in a serious accident in Italy. The machine crashed into the mountains, going over the mountains. What do you call the person who was with him running the machine?

Captain MUSTIN. An observer?

Lieutenant HAVILAND. Second pilot, perhaps.

The CHAIRMAN. The officer who was running the machine was not an experienced flier. Had the officer of lower rank been permitted to make a suggestion he would have saved the accident; there is no doubt of that. That is the rule, is it, that an officer of lower rank can not make a suggestion even if it means his life?

Lieutenant HAVILAND. That is the rule, Senator. That thing would lead to difficulty. I think the average man—I think if it had been me there I would have tried to save the ship and explain it afterwards. That is another point that brings up the question of insubordination. I have been nine years in the service and been accused of insubordination once in that time, and that was when I was leading my squadron in the war, to which incident I have referred. I was over there for the war and I did not care much what happened to me.

Senator WALSH. That was the instance I had in mind when I said something about modifying an order to permit squadron commanders to lead their men.

Lieutenant HAVILAND. The order was worded this way, which I had noted before I was supposed to have violated it. It said, "The commander of aviation forces abroad desires that officers commanding naval air stations do not engage in flying." It was not an order that officers will not. It was expressed

that he desired they would not. My defense was that our situation was unusual, that my station had been bombed, and we started out to attack the enemy two hours after they had finished bombing us.

Senator WALSH. Do you recall the condition of the Aviation Service in the Navy being such after the war that the Bureau of Navigation sent out a circular letter calling inactive officers to the service, requesting them to come back to the service, and that it actually happened inactive officers in the Aviation Service have come back to the service at the request of the Bureau of Navigation?

Lieutenant HAVILAND. Oh, yes.

Senator WALSH. The point is, there would have been a practical collapse of aviation in the Navy if the reserve officers and these inactive service men had remained out of the service.

Lieutenant HAVILAND. I will say that in my opinion there would have been a suspension of operations for perhaps a year until the nucleus of regular officers had been able to induct and train personnel. It takes a year's operations for young pilots to accomplish very much in it, unless you induct older pilots with them and put em up the step quick. In other words, it is like building up a business. You start a new department and it is the hardest thing to get it going to the mark which it should attain. It gradually steps up. The tendency always is to induct older people with a new outfit so that they can take the initiative; take the lead until the youngsters step up and develop their leaders among them who will take their places and relieve the burden. It is very hard to start a new aviation unit, especially with new men. It is hard enough with a few old men.

Senator WALSH. And these examinations, if those who failed had dropped out, in what condition would the Aviation Service of the Navy been left?

Lieutenant HAVILAND. You mean the particular individuals that had failed?

Senator WALSH. The number. If 100 men had failed and left the service at once, how would it have left the Aviation Service? For some reason or other many of you have been kept on.

Lieutenant HAVILAND. You can do most anything if you have to. It is a question of losing ground. It undoubtedly would have had some detrimental effect. It would not have wrecked the Navy. I mean to say, in the last three or four years it would not wreck the Navy. You would just lose that much ground. As a result of those that failed in the examinations, I think they lost some better pilots and better officer material than some of the men that were qualified. I could mention four in the ship-plane division that in my opinion are better officers and better pilots than two that qualified in our division.

Senator WALSH. I think that is all, Lieutenant, unless there is something you want to say.

The CHAIRMAN. In your judgment, were there more failures for lack of general experience on the examinations than lack of general knowledge of the subject upon which they were examined? You made the point awhile ago that they were not accustomed to promptly answering questions on an examination like a person who had had examinations before. Is it your judgment that that was the cause of more failures, or was it a lack of general knowledge of those various subjects?

Lieutenant HAVILAND. It was a lack of general knowledge of the various subjects. They had not had any association with the fleet. A man might cram seamanship, might get the answers, and have never been to sea.

A man of a studious type might be able to sit down in an examination and give answers that were due to books on the subject of seamanship that he might be totally unable at sea to carry out what he had put down on paper for the reason he had never been to sea. The bulk of naval aviators, I admit frankly, did not know one end of the ship from the other, never had been on one, because they were trained here and went overseas in a transport and went to work on the beach on the other side. A few individuals were put into the fleet, and some temporary officers that had served as enlisted men who had a knowledge of the fleet and a knowledge of all that going to sea would mean. The large bulk did not.

The CHAIRMAN. Do you know what branches you failed in?

Lieutenant HAVILAND. No, sir; I do not; but I would not be surprised if I failed in all of them. I did not study the examinations.

Captain WILLIAMS. I have a memorandum on the subject if you want it, but Admiral Bryan is coming and he can give you the information at first hand. My memorandum shows he failed in seamanship.

Senator WALSH. Just a moment, now, please. I think perhaps we ought to hesitate about giving publicity to the individual marks of these men.

The CHAIRMAN. The individual knowledge to me is rather important. It shows the lack of opportunity.

Captain WILLIAMS. May I ask Mr. Haviland one question?

Senator WALSH. Yes. But I do not like to have young men embarrassed who are fighting for a principle, as they are. These men do not care whether they go back to the Navy. They would go back if they were taken back because of the love they have for the service. But they feel that a principle is at stake; that an injustice has been done which they do not want repeated. I do not like the idea of parading around the subjects in which they failed.

Captain WILLIAMS. The point is: This officer, from his own testimony, never had an opportunity to prepare on these other subjects. They are such subjects that because of his association with the fleet he had a chance to get some knowledge about. If he failed in those branches in which he had no opportunity of instruction or no opportunity to familiarize himself with the general work, it, to me, makes a decided difference.

The CHAIRMAN. I can see your point.

Captain WILLIAMS. May I interrogate Lieut. Commander Haviland along those lines? What I am trying to get at is, I understand him to say that if he had studied he probably could have qualified on those examinations—the first of these written examinations. Lieut. Commander Haviland did not succeed in passing this examination. I would like to have his frank statement of whether it was due to lack of preparation on his part.

Lieutenant HAVILAND. I felt that I had so little chance of passing the examination that I did not study for it. Our work in the fleet took us down to Guantanamo Bay.

The CHAIRMAN. You did not study for it, you say? Do you mean you did not improve whatever opportunities you had?

Lieutenant HAVILAND. Oh, I did to that extent; yes, sir; but I was not able—

The CHAIRMAN. Do not use that other expression, then, because it leads to a very wrong impression; do you not see?

Lieutenant HAVILAND. I did study regulations and seamanship, and such books about courts-martial, etc., as I could get to read over. We had no one in our division that could give us the proper instruction and lay out a course of study and check us up, so that we could do a day's work, and then study this and turn in the answers and be shown where our errors were and lead us in the right direction—through having had previous examinations and knowing that end of it.

The CHAIRMAN. In other words, you had no opportunity to have a tutor to lay out to you the line of study which you should take to pass this examination?

Lieutenant HAVILAND. No, sir; we did not. And for a man that is unfamiliar with the subject of ordnance and navigation and steam engineering, to dive into these volumes and try to get out of them what you will need in an examination, I thought was hopeless.

Captain WILLIAMS. Was there anything in your record which you know of which could have affected the result of this examination? I am not asking it as a personal question at all.

Lieutenant HAVILAND. No, sir; there is nothing in my record that I know of that affected my examination.

Senator WALSH. I want to say, Mr. Chairman, in reply to your inquiry a few minutes ago, these men feel a black mark has been put against them. They have been five years away from home and in the naval service. They went through the war and they have got to explain to everybody why they were rejected, why they made a failure of their careers in the Navy. That is the side of the case which appeals very strongly to them. There is a man that has been decorated by three Governments, who has been commended by fellow citizens for his bravery, and ends up by failure, was rejected and could not pass an examination to qualify as an ensign.

The CHAIRMAN. Their service has been in the Air Service entirely, Senator.

Senator WALSH. Yes.

The CHAIRMAN. And, of course, this examination was an examination of all the different branches for the line of the Navy, which is a distinction.

Senator WALSH. Their grievance is largely that they were not informed of that fact, else they would not have spent the three years following November 11, 1918, in the service.

Captain WILLIAMS. I have some witnesses that I would like to bring up in due order. The Senator's suggestion takes the personal point of view, and that is what we want to avoid. Here is the copy of an order issued on the *Shawmut* the 26th of November, 1920, which is the time of the occurrences of which Lieutenant Haviland speaks.

Lieutenant HAVILAND. I was not on the *Shawmut*. I was in the air fleet attached to the land station.

Captain WILLIAMS. You were on shore?

Lieutenant HAVILAND. Yes; on the beach.

Captain WILLIAMS. At Mineola.

Lieutenant HAVILAND. Yes, sir; and at Cuba. I never was attached to the *Shawmut* except during the bombing operations as an aid to Captain Johnston.

Captain WILLIAMS. I would like to ask Captain Mustin, so as not to keep him away from his duties unduly, to talk about some of these general subjects that have been discussed here from his point of view.

Senator WALSH. Before that, do you mind giving us the mark in experience and qualifications that Lieutenant Haviland was given?

Captain WILLIAMS. You can get that from Admiral Bryan, who will bring the original records.

Senator WALSH. There is nothing against his record?

Captain WILLIAMS. I would rather not speak of it. Admiral Bryan has the original records, and can go over them with you. I have here a copy, some difficulty that was with his record, several of which the witness will recognize. To be perfectly frank about it, he does not understand the bearing of these things that are on his record.

STATEMENT OF CAPT. HENRY C. MUSTIN, CAPTAIN, UNITED STATES NAVY.

Captain WILLIAMS. I want your length of service in aviation and your general observations with regard to the character of the personnel that the Navy will require in aviation for the future, as distinguished from the war and the preparation for the war we expect to come.

Captain MUSTIN. The first question is my length of service?

Captain WILLIAMS. Yes; and your experience in aviation.

Captain MUSTIN. I have been flying for about 10 years. I started in April, 1912. The first year I was flying I was not regularly assigned to aviation duties. I applied for duty, but could not get assigned. Since that time, in the last nine years, with the exception of one year that I went to duty in the fleet to refresh myself enough on straight-line duties to get promoted, I have been engaged entirely on aviation work.

Senator WALSH. May I interrupt you? When the time came for you to get promoted in line duties you were given a year at sea so as to prepare yourself for examinations?

Captain MUSTIN. I insisted on getting that year, because I had been turned down by the selecting board for promotion.

Senator WALSH. You had been?

Captain MUSTIN. Yes. It was not to prepare for the examination; it was to prepare for the selecting board, to get selected. I had no doubt about being able to pass the examinations.

Senator WALSH. Did you feel that your absence in the Air Service had gotten you out of touch with navigation subjects?

Captain MUSTIN. My duty in the Air Service as it was at that time did get me out of touch with fleet duties, but it only took me a short time to become conversant with the duties of an officer in the fleet.

The CHAIRMAN. You say you were not in promotion. Did your Air Service take you out of their regular line of promotion as others, or was it your lack of sea service?

Captain MUSTIN. Nobody can state why a selecting board passes anyone over, sir. I think there are other reasons which I would rather not mention, sir. But active aviation duty at that time consisted of running one isolated air station, and we had hardly any contact with the fleet. Consequently I did lose touch with the fleet during the several years I was at Pensacola.

Senator WALSH. Proceed.

Captain MUSTIN. The question of personnel is one that I have been interested in for the whole time I have been in aviation. I have had very good opportunities to study the subject of personnel. In the first place, I was commandant of the only training station and the only operating station we had for three years.

The next opportunity was as a member of the so-called Crowell mission that went abroad to study the organizations in England, France, and Italy. My next opportunity was in command of the Fleet Air Force of the Pacific for about two years.

The CHAIRMAN. Was that study made during the early part of the war?

Captain MUSTIN. No, sir; immediately after the war. I signed the report of the Crowell mission with reservations. At that time in this country there was a very strong effort to organize a single Air Service on the lines of the Royal Air Force. From my knowledge of the character of the work that might be done by a naval aviator, I believed that all our operations in naval operations must be carried on by line officers of the Navy, and that any other system or any system which puts flying officers into the fleet who are not commissioned officers, line officers of the Navy, will fail.

I arrived at that opinion and stuck to it, and did everything in my power to avoid the creation of the central Air Service, although it was to my own disadvantage. At the time the Crowell mission made their report and I made a separate report, there were two bills in existence, the New bill and the Curry bill.

Senator WALSH. The Crowell mission recommended a separate air service?

Captain MUSTIN. Yes, sir.

Senator WALSH. And you wrote a minority report?

Captain MUSTIN. Yes, sir.

Senator WALSH. That is what I thought.

Captain MUSTIN. There were two bills pending at that time, and I was told that if either one of those bills became a law that on account of my length of service I would be the senior major general in the combined organization. Both bills carried the provision that flying officers transferred from the Army and Navy would take rank in accordance with the length of their commissioned service, and I had two weeks more commissioned service than the senior Army aviator, who was backing the bill presumably.

Senator GERRY. Has that service worked out satisfactorily in England from a navy standpoint?

Captain MUSTIN. The navy itself has never been satisfied with it. Whether the Royal Air Force is a success or is not a success in a general way for the good of the British Empire has very little bearing on our condition, because conditions are different in England.

Senator GERRY. The point I am getting at is this. Is the Royal Navy satisfied with the way the service has worked out as far as benefitting the navy is concerned, and has it been even as successful as they hoped it would be in the beginning, from a navy standpoint?

Captain MUSTIN. The general attitude in the navy, as I understand it, is that they would prefer to have the old form of organization, the Royal Naval Air Service, which was a part of the navy. I understand that at the present time there is little chance of their going back to the old organization, for the reason there are other considerations besides the navy that govern.

Senator GERRY. That bears out the information I had, which was that British naval officers thought that it had worked out detrimental to the efficiency of the British Navy.

Captain MUSTIN. I know of two British officers of the Royal Navy who have told me personally that the Royal Air Force organization was a dead failure as far as the navy was concerned. That was two years ago. Since that time they have probably corrected a number of defects.

Captain WILLIAMS. You have not told us about your work in Panama and your experience at San Diego.

Captain MUSTIN. May I finish this other subject first?

Captain WILLIAMS. Yes.

Captain MUSTIN. I have brought some personality in, because I wanted to show that my opinion on this matter is entirely an impersonal one. It would have been to my advantage to have either one of those laws go through and a single air service organized. I would have gotten two grades promotion and an enormous increase in pay. I would have gotten a major general's pay with flying pay, instead of a temporary captain's pay without flying pay.

There are two main reasons why I think the line officer in the Navy is the one about which all of the naval aviation operates. One is that I think the flag officers of the fleet in the future who have had actual aviation experience themselves, as younger officers will handle aviation in the fleet much better than a flag officer who has not had the experience. I am looking far into the future, now.

Unless we have aviation duty as a detail in the Navy, then we will never have officers of high rank who have had aviation experience. That is one part of the question.

The other is that the character of the work to be performed by aviators is such that it can not be carried out to the highest point of efficiency by any other officers than officers who have had line experience in the Navy. We are at a disadvantage in getting students, because we consider it absolutely essential that an officer going to Pensacola must first have had some fleet experience, and we do not take anybody at Pensacola who has not had three years' experience in the fleet after graduation.

I might say that, in addition to the fleet operating features of aviation, there are other features that can be performed by other officers than line officers, such as inspection, design, engineering duties, staff duties, instruction duties. We can use officers for that work who are not line officers.

Senator WALSH. Do you believe in transferring officers from aviation duties to those of line officers—in rotating them constantly?

Captain MUSTIN. Yes, sir.

Senator WALSH. Two years aviation, two years on a ship at sea, then back to aviation again, then back to the battleship or cruiser?

Captain MUSTIN. I think we will get the best results if our aviators are not kept too long at aviation duties.

Senator WALSH. That is your opinion?

Captain MUSTIN. Yes, sir. I think four years is about the limit of the tour of duty, and then I think the officer should go back to the straight line duties in the fleet at sea.

Senator WALSH. In that respect you differ with General Mitchell, who says that what this country needs is not Army airmen or Navy airmen, but airmen only.

Captain MUSTIN. General Mitchell has not had the experience in the fleet that I have had.

Senator WALSH. Do you think that applies to naval airmen?

Captain MUSTIN. Yes, sir. A naval aviator in scouting operations has to have a great deal of technical naval knowledge to be able to report intelligently in scouting and in reconnaissance; when he sees an enemy fleet he must not only know what kind of ships are in the fleet, but he also must have enough tactical and strategical knowledge to make a good estimate of what those ships are doing or intending to do. The naval aviator that is used as a spotter in gunnery has to know a great deal about naval gunnery—the whole underlying principles. In training the spotters in the Pacific Fleet, we spent more time in instructing them in things that they had nothing to do with than we did in the actual operation which was carried on at target practice; that is, sending out the reports of overs and shorts.

I would like to say that I do not think there is any parallel that can be drawn to the necessities of naval aviation. Military aviation and commercial aviation are entirely unlike it, with one exception—the handling of the plane, the flying, which is practically the same for all kinds of aviation activities.

Did I cover your question, sir?

Senator WALSH. You are speaking of the future. Of course you think that should be the policy of the Navy Department in the future, which you have outlined. May I ask you this frank question: Do you think, in view of the experience and training of these reserve officers, that this examination was a fair one?

Captain MUSTIN. I thought the examination was as fair as it was humanly possibly to make it. The law required that it be a competitive examination of all reserves and temporary officers, whether they were aviators or whether they were on other kinds of duty.

Senator WALSH. Where is the law that required it to be a competitive examination? Did not the law give authority to the department to find the qualifications of these men, and leave the question of the kind of qualification in their discretion? Is there any doubt about that?

Captain WILLIAMS. There were 1,650 applicants.

Senator WALSH. No; is there any doubt about the fact that the law gave the Navy Department authority to fix the qualifications, and it was discretionary with them as to what they should be?

Captain MUSTIN. The law gave the Navy Department authority to fix the examinations.

Senator WALSH. It could have given a one hour examination; it could have given a seven day examination—

Captain MUSTIN (interposing). No, sir.

Senator WALSH. Wait a minute until I finish. It could have given an examination in one subject or in 10 subjects; it could have given a written examination or an oral examination. Am I right about that?

Captain WILLIAMS. The fact that there were 1,650 applicants and 1,200 vacancies made it necessary to conduct a competitive examination.

Senator WALSH. That is your policy. I am not talking about your policy. As a matter of fact, did not the Navy Department have the absolute authority to determine what form, shape, and manner the examination should take, and what the word "qualifications" meant?

Captain WILLIAMS. The Navy Department had absolute and thorough control over the examination, except the circumstances were such it was compelled to make them competitive.

Senator WALSH. Did the word "qualifications" in the law give the discretion in the Navy Department to fix what they were to be?

Captain WILLIAMS. Within certain limits; yes.

Senator WALSH. What were the limits in the law?

Captain WILLIAMS. "For which they may be found qualified."

Senator WALSH. Yes; "for which they may be found qualified;" who were the ones to determine whether they would be qualified?

Captain WILLIAMS. The Navy Department.

Senator WALSH. So it was entirely discretionary with them, was it not, to determine the form, shape, and manner of the examinations to ascertain the qualifications. It was entirely discretionary with the Navy Department?

Captain WILLIAMS. This examination was for promotion to grades from the ranks in the line of the Navy, and the Navy Department had discretion to determine what those qualifications should be.

Captain MUSTIN. I had not finished my answer. My opinion was the examination was as fair as it was possible to make it, under the circumstances. It was made a paper examination in order that it could be passed by studying out of books. I could think of no suggestion to make for change in the procedure prior to the examinations.

The results of the examinations in my organization made me come to the conclusion that although the examination was theoretically fair, that practically it was not fair. My thought on this subject was brought out by the results in different parts of my organization, to be specific. I had both temporary and reserve officers under my command. I had temporary officers on the ship who did no aviation duty at all, nothing but ship duty. I had officers in the seaplane squadron who did aviation duties and occasionally had the opportunity to do ship duties. Then I had other officers in other squadrons, spotting and combat, flying, who had no opportunity at all to do ship duties. When I found out there was to be an examination we organized a school of compulsory study and lectures at which all the temporary officers and reserve officers under my command were required to attend.

Senator KEYES. Was this at San Diego, Captain?

Captain MUSTIN. Yes, sir. We pooled our interests with the air station, for the reason we had not enough permanent officers in either of the organizations to supply instructors enough for all the subjects. We had regular study-hour periods and regular lecture periods. Another very important thing we had was trial examinations, to get the officers accustomed to writing examinations. That school was carried on until it was broken up by the Balboa flight.

Senator WALSH. When was that?

Captain MUSTIN. In the latter part of December part of my organization went south, and took some of the pilots south, and took some of the instructors south, so that the school was broken up.

Senator WALSH. How many weeks did you have the school, and how many hours were there of compulsory attendance?

Captain MUSTIN. The school took place every afternoon, I think, about three hours; I won't say offhand, but about three hours or three hours and a half. The trial examinations were held once a month.

The CHAIRMAN. How many of the applicants took this course you have described?

Captain MUSTIN. All the officers under my command took it.

The CHAIRMAN. Not under your command; I mean about what proportion of those that took the examination, do you suppose?

Captain MUSTIN. Nearly all of them took the examination.

The CHAIRMAN. You say all of yours, but you did not have all that took the examination.

Captain MUSTIN. Oh, no.

Senator WALSH. What percentage of your men passed?

Captain MUSTIN. Eighty-odd per cent.

Senator WALSH. That was the highest anywhere?

Captain MUSTIN. Yes, sir. I want to say this—

Senator WALSH (interposing). I want you to develop your theory that this examination was unfair.

Captain MUSTIN. All of the officers in my organization who had had nothing but ship duties passed, 100 per cent. The greatest part of the officers who had opportunity for some ship duties passed. The greater number of failures was among those officers who had had no opportunity for any ship duties.

The reason is this, as far as I can see, that a man who had actual experience in some of these subjects, not of the technical subjects, would learn them out of a book better than a man who gains knowledge from nothing but the book.

The CHAIRMAN. Was there a larger percentage of those in aviation who failed than in any other?

Captain MUSTIN. No, sir.

Senator WALSH. Speaking of your own station?

Captain MUSTIN. Yes; only in ours; but in the whole Navy the percentage of aviators who passed was higher than the officers who were doing ship duties.

Senator WALSH. It may have turned out so after the reexaminations were held. On the first marking only 27 aviators passed.

The CHAIRMAN. I asked my question because the point was made that those who were busy flying—their minds were not in condition, after flying all day, to get down to hard boning and study those three hours and at school afterwards. The hazardous duties of flying seemed to affect the nervous system, as I believe was expressed.

Captain MUSTIN. My pilots flew only half a day. The officers who had but ship duties, not flying at all, all passed; there were no failures. I think the reason of that was because they were familiar from past experience with the subjects in which they were examined.

I also consider that the average of intelligence of those officers was not as good as the average intelligence of the pilots.

The CHAIRMAN. And yet there was a larger percentage of pilots failed?

Captain MUSTIN. Yes, sir. I think if I had been able to keep my school going from December on to May that all of the people would have passed. But it was impossible to do that, because the fleet went south, and we were required to take part in that operation.

The CHAIRMAN. Were these schools conducted in other quarters?

Captain MUSTIN. Yes; they were in most all the organizations.

Senator WALSH. Was there any other compulsory school except yours?

Captain MUSTIN. I do not know.

Senator WALSH. I do not think there is any doubt about that. Is there, Captain Williams?

Captain WILLIAMS. I can not say.

Captain MUSTIN. I made it compulsory, because I had some officers there who would put off studying until the last minute, hoping they could squeeze through.

Captain WILLIAMS. Captain Mustin has testified something about this examination not turning out at the end as fair as at the beginning.

Senator WALSH. In practice, he said it was unfair.

Captain MUSTIN. As a competitive examination I do not think it was possible to line up anything that was more fair; but the actual results were that some officers had more advantages for learning the subjects than others.

Senator WALSH. Was it more fair for class 5 reserves than for any other class that took the examination?

Captain MUSTIN. Class 5?

Captain WILLIAMS. The reserve flying corps, class 5. Is not that self-evident?
 Senator WALSH. I want to ask his opinion. He is familiar with all the classes that took this examination. I say, was it more unfair to these reserves that took the examination than to a radio man, for instance, or any other class that took the examination, 1,350 of them?

Captain MUSTIN. I think it would be harder for a class 5 aviator who had no ship duty at all than it was for the officers who had had ship duty during the preparation for the examinations. I want to say this, that it would not have been possible at that time to put all those officers on ship duty without suspending the aviation operations. I was in hopes, in spite of the disadvantage that these people had, that we could give them enough lectures and compulsory study to fit them to pass the examinations, which were very fair and easy examinations, as far as the questions were concerned.

Senator WALSH. Is the Navy losing by the result of these examinations a large number of reserve officers that will for a time impair the efficiency of the Air Service, in your opinion?

Captain MUSTIN. Yes. I can only speak personally for those under my own command. I know we lost some officers that I consider would in the course of time make excellent line officers of the Navy if given an opportunity. The Bureau of Aeronautics will be embarrassed by a shortage of officers when all the reserves who failed are put on inactive duty—shortage of experienced officers, I should say.

Lieutenant HAVILAND. To the best of your knowledge, Captain Mustin, was there any officer of your rank in charge of any station, the activities that you were in charge of on the Pacific coast, in charge of the same activities on the Atlantic coast that displayed the energy and initiative that you did in realizing the troubles that class 5 men, since I was in that class, would have, and who ordered compulsory training and attendance at the schools so, as you said, they could give test examinations and be helped in writing the final examination?

Captain MUSTIN. I do not know what the procedure was at all other stations, but judging from results, I should say that at Pearl Harbor, where nearly all of them passed, and in the detail to rigid training in England, where nearly all of them passed, I think they must have had a regular and compulsory course of study.

Senator WALSH. I am inclined to think that both in England and at your station they had compulsory schools, but I think there were none on the Atlantic coast.

The CHAIRMAN. Senator, this is a very important witness and a very important part of the hearing. Would it not be better to adjourn until to-morrow morning. I am very anxious to be on the floor this morning.

Senator WALSH. Yes. Just one question: Were you consulted in any way by the examining board, although you were the ranking officer in aviation in the naval service, with reference to the kind of examination that should be given class 5 men?

Captain MUSTIN. No, sir; but I saw the Chief of Bureau of Navigation out on the coast and talked the thing over with him. He talked to my aviators and other officers out there about the examination, and after a consultation with him, in which he told me that it would be a paper examination and avoid as far as it was possible subjects that could only be answered by practical knowledge, I considered then that the examination was going to be as fair as it was possible to make it.

Senator WALSH. Did you prepare the aviation questions?

Captain MUSTIN. No.

Senator WALSH. Do you know who did?

Captain MUSTIN. No, sir; I do not know where they were prepared.

Senator WALSH. Did you examine any of the papers?

Captain MUSTIN. No, sir.

The CHAIRMAN. We will adjourn until 10 o'clock to-morrow morning.

(Thereupon, at 12.15 o'clock p. m., the committee adjourned until to-morrow, Friday, April 14, 1922, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

FRIDAY, APRIL 14, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m., in the committee room, Capitol, Senator L. Heisler Ball presiding.

Present: Senators Ball (chairman), Keyes, and Gerry.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order.

Senator WALSH. Captain Williams, is there any objection to the examination papers being put in my custody for examination and inspection?

Captain WILLIAMS. I am going to have Admiral Bryan here, and I would prefer you ask him that, because I am not familiar with his practice.

STATEMENT OF CAPT. HENRY C. MUSTIN, UNITED STATES NAVY— Resumed.

Captain WILLIAMS. Captain Mustin, you are a naval officer of how many years experience?

Captain MUSTIN. This is my thirtieth year of service.

Captain WILLIAMS. You are an aviator who has held responsible positions, of how many years experience?

Captain MUSTIN. Ten years of flying.

Captain WILLIAMS. I would like to ask you if you consider that the department gave aviators the same or more or less encouragement than it gave any other class of officers?

Senator WALSH. You mean encouragement to remain in that service?

Captain WILLIAMS. Yes; in connection with these examinations.

Senator WALSH. After the armistice?

Captain WILLIAMS. Yes.

Captain MUSTIN. I should say more encouragement was given to the aviators than to the others, as far as I know, in my organization. The Chief of the Bureau of Navigation made special efforts to explain to the officers the nature of the examinations they were to take, and what preparation would be necessary, in a personal address to them at the mess hall at San Diego.

Senator KEYES. When was that, Captain?

Captain MUSTIN. That was about September of the year before the examinations.

Senator WALSH. I think Captain Williams and I would like to know also whether after November 11, 1918, and up to the time of the examinations, encouragement was given to these young men to remain in the Navy and make it their career more than the line officers?

Captain MUSTIN. After the armistice?

Senator WALSH. Yes.

Captain MUSTIN. That I can not say, because I did not have any official correspondence on the subject.

Captain WILLIAMS. Did you have any opportunity to determine whether the temporary officers who were attached to seagoing ships had more or less opportunity for preparation for this examination than the aviators attached to shore stations. You were both at sea and ashore during some of this period, or at least had opportunities for observation?

Captain MUSTIN. As I said yesterday, all the officers of the *Aroostock* who took the examination passed.

Senator KEYES. Can you tell us how many there were on board the *Aroostook*?
 Captain MUSTIN. On board the *Aroostook* that took the examination?

Senator KEYES. Yes.

Captain MUSTIN. Four or five. Those officers had exactly the same instruction as the other officers in the Pacific air force, and they had the advantage of not doing any kind of duty but ship duty. So that when they took the examinations the questions were largely along lines in which they had had that experience. They did better on the average than any officers I had under my command that took the examinations, although I do not consider the average of intelligence of that group is as high as the average of intelligence of some of the other officers.

Captain WILLIAMS. By intelligence do you mean education?

Captain MUSTIN. I should have said education.

Captain WILLIAMS. I have here some figures prepared by the Bureau of Aeronautics as to the cost of training a naval aviator. Can you, from your official position, testify as to the value of those figures?

Captain MUSTIN. I think these figures are approximately correct for the training up to the point of graduation from the school. But the training for actual service should include about a year's operation with the fleet, and it would be very difficult to figure out the cost in that connection.

Captain WILLIAMS. The question is important, and with the assistance of the memorandum can you give us an idea of the cost of training an aviator?

Captain MUSTIN. I should say, counting the year after they graduate from the flying school at Pensacola, the figure should be at least double this.

Captain WILLIAMS. That would make how much?

Captain MUSTIN. \$27,000.

Captain WILLIAMS. Will you itemize that as much as you can?

Captain MUSTIN. The items in this memorandum from the Bureau of Aeronautics cover the cost up to the time of graduating. The items after graduating would be—

Captain WILLIAMS. Will you read that?

Captain MUSTIN (reading). "Cost of training naval aviators. Navy figures. Total cost \$13,500. (a) Maintenance of planes, buildings, and grounds devoted to training. (b) Pay of civilian personnel working on planes used in training. (c) Training planes lost by crashing. (d) Training planes worn out in use. (e) Pay of officers required on station for training-school duties. (f) Pay of enlisted men required on station for training-school duties.

"National Advisory Committee for Aeronautics has no figures relative to the cost of training naval aviators."

Captain WILLIAMS. There is a note here that I would like to omit, which was made merely for my information.

Captain MUSTIN. There is another item on here, "These figures furnished by Bureau of Aeronautics."

The items that I would give under the cost of training during the year after graduation from Pensacola, without having prepared in advance for this question, would be:

Maintenance of planes and maintenance of the ships and boats used in connection with fleet aviation.

Pay of officers and men on ships who have no direct aviation duties, but are used for duty in connection with aviation.

The CHAIRMAN. Captain, in giving those costs, how many boys could be trained at one time on those ships—because, of course, you would have to divide the maintenance of the ships and the personnel for the manning of those ships. If you are going to train a number at the same time, those are items, it seems to me, that would be divided up somewhat as to the number.

Captain MUSTIN. Yes, sir. I can not give that off-hand, because I had not time to prepare the details.

The CHAIRMAN. But you could train several, I suppose, with this equipment?

Captain MUSTIN. Oh, yes; quite a number.

Senator KEYES. You are trying, as I understand it, to give the average cost?

Captain MUSTIN. I am trying to say what the items are. I made a guess at the total cost.

The CHAIRMAN. Unless we have the number that would be trained with those items, it is pretty difficult to get the individual cost. Do you mean to take the figures that you gave before as applicable to those items you are giving there?

Captain MUSTIN. No, sir; these are not my figures. This is an item of the cost of training naval aviators, and Captain Williams asked me if I thought this was correct.

The CHAIRMAN. You have not given your figures, then?

Captain MUSTIN. Yes, sir; I have said that this, I understood, covered the cost of training at Pensacola, but I thought also we should count in the cost of training at least another year for operating experience until they are fully qualified.

The CHAIRMAN. These are additional expenses, then, that you are giving now?

Captain MUSTIN. Yes, sir.

Senator WALSH. But you are not including the cost of tuition at Annapolis?

Captain MUSTIN. No, sir; I am not counting that. I am counting the additional training required to fit line officers for duties in the fleet as aviators.

The CHAIRMAN. I understand now.

Captain MUSTIN. The next item would be cost of operating planes lost by crashing.

Cost of operating planes worn out in use.

Cost of ammunition used in target practice of planes, and a certain share of the cost of the ammunition used by the battle fleet at target practice.

I think those are the items.

Senator WALSH. Is not one way of determining the cost of training an aviator the expense of a training station, such as Pensacola, per annum, divided by the number of hours used in training? Is not that one of the methods employed?

Captain MUSTIN. Yes, sir; that is included in this sheet here [indicating].

Senator WALSH. Is it not a fact that procedure would show that last year at Pensacola it cost \$513 for each hour, that each student was given 120 hours, and your department estimated the cost of training at Pensacola last year was \$60,000 per student?

Captain MUSTIN. I am not able to say that.

Senator WALSH. Is that not one way of determining it, by finding out the number of hours each student gets and the cost per hour for each student in order to ascertain the whole cost of maintaining a station for a given year?

Captain MUSTIN. I would like to say that this is a matter I have not gone into at all, sir. I do not like to answer these questions offhand.

Senator WALSH. Anyway, you say in your opinion it is not less than \$27,000.

Captain MUSTIN. I thought the total cost should be about \$27,000.

Senator WALSH. Has the operating officer of Pensacola given the department the cost of maintaining that station in the years 1917, 1918, 1919, 1920, and 1921?

Captain MUSTIN. I have not seen the correspondence on that subject.

Senator WALSH. In all probability the cost would be of record in the department, would it not?

Captain MUSTIN. I think the Bureau of Aeronautics has facilities for furnishing those figures exactly.

Senator WALSH. I presume we can get them.

Captain WILLIAMS. Will you see that those are obtained and placed in the record?

(The information referred to is here printed in full as follows:)

UNITED STATES NAVAL AIR STATION,
Pensacola, Fla., May 3, 1922.

From: Commandant.

To: Bureau of Aeronautics.

Subject: Cost of maintenance and number of students qualified as aviators during the calendar years 1917 to 1920, inclusive.

Reference: (a) Bureau of Aeronautics dispatch 9528-1200 of April, 1922.

1. The costs of maintenance at this air station for the calendar years 1917, 1918, 1919, and 1920 are as follows:

	Labor.	Material.	Total.
1917.....	\$588,460.85	\$1,201,847.87	\$1,790,308.72
1918.....	1,087,170.39	2,045,087.02	3,132,257.41
1919.....	1,227,452.13	2,493,179.43	3,720,631.56
1920.....	981,844.14	1,487,745.34	2,469,589.48
Total.....	3,884,927.51	7,227,859.66	11,112,787.17

The above covers all labor charges and all material drawn from stores for the periods indicated above.

2. The number of aviators qualified at this station during the above years are as follows:

1917—Naval aviators (sea plane)-----	166.
1918—Naval aviators (sea plane)-----	1, 457
Naval aviators (dirigible)-----	292.
Free balloon pilots-----	6.
1919—Naval aviators (sea plane)-----	519.
Naval aviation pilots (sea plane)-----	20
Naval aviators (dirigible)-----	36
Free balloon pilots-----	4
1920—Naval aviators (sea plane)-----	50.
Naval aviation pilots (sea plane)-----	32.
Free and kite balloon pilots-----	38
Naval aviators (dirigible)-----	11
Naval aviation pilot (dirigible)-----	1

3. Attention is invited to the fact that during the latter part of the year 1917, all of the year 1918, and the first part of the year 1919 the aviators who were trained at this station received their ground-school training and preliminary flight training at other stations, being given the completing course at this station. Commencing January, 1920, the complete course of ground and flight training, extending over a period of six months, was instituted at this station and is still in effect.

H. H. CHRISTY.

F-R.

Senator WALSH. Taking your own figures of \$27,000 as the cost of training each individual aviator, and 90 men who have been trained and increased in rank, four-fifths of them from ensign to lieutenant senior grade, are removed from the service, and you are attempting to train 90 men to take their place, the cost to the Government in dropping these men amounts to over \$2,500,000, on your own figures, does it not, if the number is 90?

Captain MUSTIN. I will accept your arithmetic, sir.

Senator WALSH. Those are the figures. It is a fact that if these men were found to be qualified for this service the Navy Department could close Pensacola station, absolutely close it tight, and save \$2,500,000, could it not?

Captain MUSTIN. No, sir; we could not close Pensacola.

Senator WALSH. If you need more men than these 90 men, you can not close it; but if you were only operating it to get 90 men, suppose the Government needed only 90 more men, and you took these men back, you could close Pensacola?

Captain MUSTIN. If we needed only 90 more men and expected that we would not have to make any replacements we could close Pensacola; but actually we can not do that.

Senator WALSH. I understand. You need a good deal more than 90 men.

Captain MUSTIN. Yes.

Senator WALSH. And you need replacements continuously?

Captain MUSTIN. Yes, sir.

Senator WALSH. I have not any more questions on the matter of cost.

The CHAIRMAN. What is the capacity of Pensacola station?

Captain MUSTIN. At the present time the officers and enlisted personnel have capacity for training three classes of 50 students per annum—150 per annum.

Senator WALSH. One other question. What is the cost of training a young man four years at Annapolis?

Captain MUSTIN. I do not know, sir.

Senator WALSH. Does anybody know that?

Captain WILLIAMS. I have made a very intensive study of the question. It depends largely on what overheads you charge. If the idea is to compare it with the cost of training aviators, I think the only just comparison would be to charge item for item. The Naval Academy has been opened since 1845 or 1846. Periodically in all that time we have tried to find out what it cost to train midshipmen.

Senator WALSH. There is not a primary school in the country that does not know what it costs per capita to train a student in a given year.

Captain WILLIAMS. It depends entirely on what you choose to charge. In a careful study, eliminating those charges which I consider fixed and which

I did not consider a just charge against education, I produced a figure of \$11,000. That is not in any way comparable to these figures that have been discussed this morning.

Senator WALSH. In what way, Captain, is it not comparable?

Captain WILLIAMS. It took into account other items, a different set of items. If they were to be compared with this figure of the Bureau of Aeronautics, \$13,500, or Captain Mustin's figures of \$27,000, I would prefer to put them side by side, item by item.

Senator WALSH. In the future, if you are only going to train for aviation Annapolis graduates, it is going to cost \$11,000 more than it ever has before, is it not, on your own figures?

Captain WILLIAMS. Where does the \$11,000 come in?

Senator WALSH. The four years spent at Annapolis.

Captain WILLIAMS. No; it will cost more than that.

Senator WALSH. How much more?

Captain WILLIAMS. It would require a calculation, and if the calculation is to be pursued along the lines we have here, (a) maintenance of planes, buildings, and grounds devoted to training—

Senator WALSH. I mean \$11,000 in addition to that sum.

The CHAIRMAN. Senator, may I make a suggestion. I think it would be very much better for the committee if we would have an estimate made eliminating the cost of buildings and everything that is a fixed charge now. Those buildings are already built. As I understand it, you have over 2,000 students or midshipmen. At the training station at Pensacola you have only about 162, three classes; is that right?

Captain MUSTIN. About 150 per annum.

The CHAIRMAN. One hundred and fifty-six. Of course, eliminating your buildings, equipment, etc., your overhead charges are very much greater there than they would be at Annapolis, because you have a large class at Annapolis and a small class there. I would like to have the estimates for both of these if we can get it, eliminating entirely your buildings, your natural equipment which is already installed, both for Annapolis and for Pensacola. That would give us, in my judgment, a much better idea of the actual cost of training than if you are going to figure in the buildings, the real estate, and everything else.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., July 27, 1921.

To: Bureau of Navigation.

Subject: Requests estimates as to cost of educating midshipmen.

Reference: Bureau's letter N-316-GAB, 5165-1327, of July 8, 1921, received at the Naval Academy July 20, 1921.

1. In compliance with the above reference, there is given below the desired estimated comparative cost of maintaining the Naval Academy in accordance with Tables 1, 2, and 3, as contained in the above reference.

TABLE 1.—*Estimated cost of the average number of midshipmen required in order to provide a yearly average of 250 graduates.*

Cost of transportation and mileage of candidates who may qualify as midshipmen (estimated), 338, at \$45 each.....	\$15,210.00
Appropriations, Naval Academy, including pay of civil professors and instructors (estimated).....	1,781,526.02
Pay of average number of midshipmen at Naval Academy during an academic year, 1,158, at \$750 per annum.....	868,500.00
Rations of average number of midshipmen at Naval Academy during an academic year, 1,158 at \$1.08 per day.....	456,483.60
250 graduates per annum.....	3,121,719.62
Cost per midshipman graduated.....	12,486.88

TABLE 2.—*Estimated cost of the average number of midshipmen required in order to provide a yearly average of 300 graduates.*

Cost of transportation and mileage of candidates who may qualify as midshipmen (estimated), 406, at \$45 each.....	\$18,270.00
Appropriations, Naval Academy, including pay of civil professors and instructors (estimated).....	1,892,871.39

Pay of average number of midshipmen at Naval Academy during an academic year, 1,391, at \$750 per annum-----	\$1,043,250. 00
Rations of average number of midshipmen at Naval Academy during an academic year, 1,391, at \$1.08 per day-----	548,332. 20
300 graduates per annum-----	3,502,723. 59
Cost per midshipmen graduated-----	11,675. 75

TABLE 3.—*Estimated cost of the average number of midshipmen required in order to provide a yearly average of 350 graduates.*

Cost of transportation and mileage of candidates who may qualify as midshipmen (estimated), 474, at \$45 each-----	\$21,330. 00
Appropriations, Naval Academy, including pay of civil professors and instructors (estimated)-----	2,004,216. 77
Pay of average number of midshipmen at Naval Academy during an academic year, 1,623, at \$750 per annum-----	1,217,250. 00
Rations of average number of midshipmen at Naval Academy during an academic year, 1,623, at \$1.08 per day-----	639,786. 60
350 graduates per annum-----	3,882,583. 37
Cost per midshipmen graduated-----	11,093. 10

Comparative difference in estimated cost of maintaining Naval Academy at the three strengths proposed in Tables 1, 2, and 3:

Table 1, 250 graduates, at \$12,486.88-----	\$3,121,719. 62
Table 2, 300 graduates, at \$11,675.75-----	3,502,723. 59
Table 3, 350 graduates, at \$11,093.10-----	3,882,583. 37

2. In accordance with the bureau's instructions, it will be noted in making up these estimated figures only direct items chargeable to candidates and midshipmen and the Naval Academy appropriations are taken into consideration. All items are omitted such as pay and allowances of commissioned and warrant officers, commutation of quarters, heat, light, etc.; investment on cost of new Naval Academy; maintenance of ships, Naval Academy; the cost of maintenance of the naval hospital, marine barracks, supply and disbursing departments; the cost of practice ships in commission for four months for the midshipmen's summer cruise; the Government's investment in the Naval Academy dairy (approximately \$250,000); all of which are indirectly chargeable to the maintenance of the Naval Academy and the graduation of a midshipman.

3. From the above comparative tables it will be noted that the greater the number of midshipmen graduated, the less the cost per capita graduated. In other words, it cost less proportionately to graduate 350 midshipmen than 250 midshipmen. In this particular it is interesting to note that in the estimated cost per capita graduated in 1911, as shown in the superintendent's letter to the Bureau of Navigation May 18, 1911, based upon 150 graduates per annum, the cost was \$11,000, as modified by the bureau's letter of May 23, 1911, which is approximately the same per capita as under present conditions. With all the various large increases incident to maintaining the Naval Academy due to the inflated financial conditions of the past four or five years, the cost per capita of 350 graduates per annum is \$11,093.10 as shown in Table 3, as against \$11,000 above noted.

4. The figures shown in the above tables are merely estimates based upon current conditions and it must be assumed these estimates are only approximate and naturally will fluctuate from year to year, but the figures used are sufficiently fair to cover any reasonable fluctuation either way.

J. HALLIGAN, Jr., *Acting.*

Captain WILLIAMS. There is another item that enters into that, (e) and (f). We have included the pay of officers required on stations for training-school duties and the pay of enlisted men required on stations for training-school duties.

The CHAIRMAN. I think those should be considered at both Annapolis and Pensacola, from the fact it is the occupation of those people at that time, and is a part of the actual expense. It makes no difference if they are Army officers or naval officers, and they are on the regular pay roll, yet it is a part of the local expense of the training and should be included.

Senator WALSH. My attention has been called to the fact that the witness spoke of three classes at Pensacola. As a matter of fact, there are but two classes there, totaling about 100 now; but you are contemplating, in order to increase your personnel, because of these losses, to establish three classes in the future; is not that the story?

Captain MUSTIN. The station at Pensacola has recently made a recommendation that they train three classes a year instead of two.

The CHAIRMAN. In that event there is one other separation that I would like to have. You have, say, that third class of men whom we think should have been admitted. You would really have only the additional expense of training, which would be the actual expense of the boys while there, and you would not have any additional teachers or machines, probably, or equipment of that kind. You would merely have the actual living expenses of those boys.

Captain MUSTIN. They pay that themselves.

The CHAIRMAN. They pay it themselves?

Captain MUSTIN. Yes, sir.

Senator WALSH. I am surprised, if I may say it, that the Committee on Naval Affairs—

The CHAIRMAN. They furnish their own clothing, their uniform, and everything?

Captain MUSTIN. Yes, sir; out of their salaries, of course.

The CHAIRMAN. They are paid a salary?

Captain MUSTIN. Yes, sir.

The CHAIRMAN. Does the salary cover their expenses?

Captain MUSTIN. I do not think the salary of a naval officer covers the expenses for anybody now, sir.

The CHAIRMAN. It depends on the expenses, of course. The salaries paid those boys to a very great extent would be additional expense, if you had to run the school, anyhow.

Captain MUSTIN. The midshipmen also receive a salary while they are at the academy, which is supposed to cover their living expenses.

Senator KEYES. It seems to me the Bureau of Aeronautics has prepared what they consider the expense of training an aviator. Senator Walsh has asked what is the expense of training a man at Annapolis, and it seems to me if the department can furnish one it can furnish the other.

Captain WILLIAMS. Certainly.

Senator KEYES. Why not ask the department to submit figures, with a statement of their basis, as to the cost of educating a man at Annapolis?

The CHAIRMAN. Do you not think it should eliminate the cost of the buildings?

Senator KEYES. Let them make their own estimate and give us the basis on which they arrive at the result.

The CHAIRMAN. It seems to me that the cost should not include the real estate; that that should not be charged up against it.

Captain WILLIAMS. I am trying to get what the committee wants. In order to get the answer that suits me best, eliminating expenses which I did not consider just charges against the training of midshipmen, and putting in those I did, and averaging them with the expense over a long number of years, I came to the personal conclusion that the cost was about \$11,000.

I have asked the Bureau of Aeronautics for their estimate, and they have given me this memorandum to which we have been referred. Captain Mustin, who is Assistant Chief of the Bureau, had a different opinion. The Bureau of Aeronautics estimate is \$13,500. I do not know that they had any knowledge of my method of estimating \$11,000 for midshipmen.

Captain MUSTIN. Understand, my estimate is given off-hand, sir, without having had a chance to study the question in advance. It may be a great deal more, it may be somewhat less than the figure I gave.

Senator KEYES. Do I understand, Captain Williams, that the \$13,000 as prepared by the Bureau of Aeronautics includes any training at Pensacola that Captain Mustin thinks should be included?

Captain MUSTIN. This includes only the training at Pensacola. I added a certain amount for the year's operating experience with the fleet.

Senator KEYES. I misunderstood you. The additional year is with the fleet?

Captain MUSTIN. Yes.

Senator KEYES. I see.

Captain MUSTIN. In the future we are not going to give a pilot his certificate until he had had a year's operating experience after graduating from Pensacola.

Senator WALSH. Does the \$13,000 include the \$11,000 cost for midshipmen training?

Captain WILLIAMS. It does not.

Senator WALSH. So that on your figures, Captain Williams, you assume that in the future if only midshipmen are to be trained for aviation, it is going to cost \$24,000.

Captain WILLIAMS. If it takes as long to train a Naval Academy graduate as it has to train aviators in the past, your statement is correct.

Captain MUSTIN. May I add something to that, sir. If we are going to train officers for aviation duties who do not go through the Naval Academy, we should add to the cost of their training and their flying the cost of training them to be naval officers, which will be as much at least, if not more, than their tuition at the Naval Academy.

Senator WALSH. That was not so in the case of these young men who were just taken in the service, because they got practically no schooling.

Captain MUSTIN. Yes; but we do not admit they are fully qualified for fleet aviation duties yet.

Senator WALSH. I mean those reserve officers in the Flying Corps whom you have admitted now to full commissionship in the Navy have cost the Navy nothing for their so-called training in line duties.

Capt. MUSTIN. Yes, sir; those that have had training in line duties.

Senator WALSH. I thought we admitted here that there was very little schooling given to them who took the examination, excepting such as was given to the men at that school and a few other schools. It was insignificant, was it not?

Captain MUSTIN. Yes, sir; up to the present time.

Senator WALSH. Exactly.

Captain MUSTIN. But the training of those officers has to go on. As fast as we get replacements for them they are to be released from aviation duty and given opportunity for duty in the fleet, so that they will be able to pass their promotion examinations.

Senator WALSH. Do you believe in transferring trained pilots from duty in the aviation service to duties on the line?

Captain MUSTIN. Yes, sir.

Senator WALSH. You think it does not tend to scatter his efficiency to keep moving him from one service to another?

Captain MUSTIN. No. On the contrary, the officer becomes more efficient if he is given an opportunity to learn and keep in touch with the other parts of naval work. The man that stays on one kind of duty all the time is likely to get into a rut.

Senator WALSH. Have you been in aviation duty for 10 years?

Captain MUSTIN. Nine years assigned, with the exception of one year in the fleet; but I have had additional duties besides aviation.

Senator WALSH. If your theory is correct, you should have spent some of this time at sea, should you not?

Captain MUSTIN. Yes, sir; I spent too much time in aviation duty. I tried to get out of it on two occasions, but I was not able to.

Senator WALSH. Was that because of your personal wishes or because of your belief that it would improve your service to your country when you came back to take up aviation again?

Captain MUSTIN. That was for personal reasons, because I thought that I was not getting enough experience in regular duties to get by the selecting board.

Senator WALSH. May I ask you this question? Will you state to what extent the Navy Department has depended upon the reserve officers to maintain the efficiency of the Naval Air Service since the armistice?

Captain MUSTIN. We have largely depended on the reserve officers for the reason that prior to the time that the United States went into the Great War we had only about 40 regulars qualified. Then during the last administration there was a policy of not ordering any more regular line officers to aviation duty, and very few were ordered to training during the war. The result was that at the end of the war the greater proportion of the officers available for aviation were reserves and temporaries.

Senator WALSH. You say "the greater proportion." Can you give us some idea of the percentage? Was it as high as 80 or 90 per cent?

Captain MUSTIN. It was in the neighborhood of 80 per cent, I should say.

Senator WALSH. Since that time this 80 per cent of reserve officers and 20 per cent of regular officers in the flying corps have been devoting their atten-

tion to training Annapolis graduates to enter the flying service of the Navy, in large part, have they not, showing them the duties and inducting them into aviation work?

Captain MUSTIN. A large proportion of the flying instructors used at Pensacola, if not all of them, were reserves.

Senator WALSH. How about the students, a large part of the students since the war; they are regulars, are they not?

Captain MUSTIN. The students are all regulars now.

Senator WALSH. So the large proportion of the instructors have been reserves, and they have been instructing regulars to take their places, have they not?

Captain MUSTIN. In addition there were some reserve officers who were originally qualified for lighter-than-air work who have gone to Pensacola to qualify for heavier-than-air work.

Captain WILLIAMS. I have one more question. You have stated that you held a compulsory school at San Diego to instruct the reserve officers so that they might pass the examination for entry into the Regular Navy. Who were the instructors in that school, reserves or regulars?

Captain MUSTIN. The instructors were all regular officers.

Captain WILLIAMS. I have no more questions.

Senator WALSH. I have asked if any of the young men have any questions, to give them to me. Are there any regulars actually instructing in aviation now?

Captain MUSTIN. All the advanced instruction in aviation is conducted by regular officers, or was conducted by regular officers in my organization on the Pacific.

Senator WALSH. I suppose this pertains to Pensacola, where the preliminary training in the East is given.

Captain MUSTIN. Yes.

Senator WALSH. Are there any regulars actually instructing students there?

Captain MUSTIN. The superintendent of training is a regular officer, and I think that has always been the case, that a regular officer has been head of training.

Senator WALSH. That is the only one?

Captain MUSTIN. In the last year some assistants in the training school at Pensacola have been regular officers.

Senator WALSH. The question refers to the present time. The memorandum comes to me from a man that just came from there, to the effect that the chief instructor alone is a regular and every other instructor at Pensacola now is a former reserve officer.

Captain MUSTIN. He is the chief flying instructor. I am considering the whole course of training there, the ground school work as well as the air work.

Senator WALSH. I suppose the air work is the main work there, is it not?

Captain MUSTIN. It is not of any greater importance than any of the other.

Senator WALSH. It is the hazardous work.

Captain MUSTIN. It is the most hazardous, surely.

Lieutenant WORTHINGTON. You say an officer remaining in aviation for over four years gets in a rut. Is it not true there are a number of officers like yourself who have been on aviation duty for a number of years on whom the Navy Department relies to formulate and carry out the aviation policy of the Navy?

Captain MUSTIN. Yes.

Lieutenant WORTHINGTON. They have not considered you were in a rut, then, if the department relies on you to a great extent.

Captain MUSTIN. I know from my own experience that an officer who stays too much on any one kind of duty is likely to get in a rut.

Senator WALSH. How long has Chevallier been on aviation duty?

Captain MUSTIN. I think he came in in 1912.

Senator WALSH. Has he been on duty constantly since then?

Captain MUSTIN. He has had ship duties in the meantime.

Senator WALSH. How much?

Captain MUSTIN. I could not say. He was on the *North Carolina*; just how long I do not know.

Senator WALSH. Then since the outbreak of the war what has he been doing?

Captain MUSTIN. He was in France during the war, and I think when he came home he went to the Navy Department and then to the ship plane division of the Atlantic Fleet, and later to duty in connection with the *Langley*.

Senator WALSH. Chevallier is one of the great aviators of the country, one of the best informed men in aeronautics, and it is due in large part to the fact that he has been in that branch of the service, practically confined to the Navy Department, is it not?

Captain MUSTIN. Yes, sir; but he would be a better man if he had had more experience in the fleet.

Lieutenant HAVILAND. Captain Mustin, in describing Lieutenant Commander Chevallier's service it was said that in the meantime he had had ship duties during this period under discussion, 1911 and 1912 to the present time. Were his ship duties in connection with aviation or did he do deck and watch duties aboard ship?

Captain MUSTIN. Both, on the *North Carolina*.

Senator WALSH. But there were some aviation duties all the time.

Captain MUSTIN. Yes.

Lieutenant HAVILAND. He was on the *North Carolina* for the purpose of carrying out aviation experiments, was he not, Captain?

Captain MUSTIN. Yes; and while he was there I understood that he was watch and division officer as well as an aviator.

Senator WALSH. Someone has suggested I ask you this question: Was it not the intention of the department at one time to keep all reserves on active duty until January 1, 1924?

Captain MUSTIN. That I do not know, sir; I can not answer.

Captain WILLIAMS. I have never heard so.

Senator WALSH. I think that is all with this witness.

Captain WILLIAMS. I will ask Commander Ellyson to make a statement.

Senator WALSH. What is the distinction? The reserves have all been sworn and I suppose the regulars should be sworn, too. Is there any distinction? Is there any reason why the regulars should not be sworn?

Senator KEYES. Swear him.

TESTIMONY OF COMMANDER T. G. ELLYSON, UNITED STATES NAVY.

(The witness was sworn.)

Captain WILLIAMS. The question under investigation, Commander Ellyson, is the examination held for temporaries and reserves in May, 1921, for entry into the line of the Navy. Will you state any duty you have had which had an influence on this examination, and all the facts connected with the subject within your recollection. On what duty were you at the time?

Commander ELLYSON. In January, 1921, I was ordered to Hampton Roads as executive officer of the air station in that place. I have no knowledge of what steps were taken at other stations regarding preparation for examinations, but at Hampton Roads classes were organized for the reserves and temporaries on October 15, 1920. That was ascertained from the official records of the station.

At this time the classes were conducted on the operating base by officers from the training station, the air station, and I think the submarine base.

I investigated the classes that were going on at the time I arrived and decided that aviators could get better instruction, so at that time four regular officers, Naval Academy graduates, were put in charge of the instruction of the naval aviators attached to the air station. Regular courses were laid down and instruction periods were given on Mondays, Wednesdays, and Fridays from 3.30 in the afternoon until 5.30.

The CHAIRMAN. Was attendance compulsory?

Commander ELLYSON. Attendance was not compulsory, but the officers on two separate occasions were called in conference by the commanding officer and urged and advised to avail themselves of the opportunities—the commanding officer being Captain Doyle.

The reason for not making it compulsory was that there were a number of temporary officers as well as reserve officers, and had it been made compulsory some officers would have had to devote time to studies on which they were well founded, in seamanship and navigation for the temporaries, and they wanted to devote their time to other studies.

These classes continued until immediately prior to the examinations, the latter part of May, 1921. Two weeks before the examinations, I think, to be exact, it was 12 days before the examinations, the officers who were to take

the examinations were relieved from all duty in order to make final preparation.

During the spring preparations for bombing were carried on rather extensively at Hampton Roads, but I do not believe this materially affected the officers who were preparing for the examinations, because it is notable that the officers who were most intensively engaged in this practice, Lieutenants Patterson, Owen, Reichelderfer, Kindel, and Stanley, and others whom I can not remember, qualified for senior lieutenant, and all of those people named were actively engaged in the bombing exercises. I know of only one officer attached to the station who studied to any extent and failed to pass the examination; that was Ensign Cassidy. He studied, and studied hard, but his preliminary education was not sufficient to enable him to acquire enough knowledge in the time to pass the examination.

That is all.

Captain WILLIAMS. Can you tell me about the number of reserve officers, concerned in this statement of yours, there were who applied for examination at your station?

Commander ELLYSON. I do not know the number of reserves and the number of temporaries, but there were approximately 65 that took the examination, about 50 of whom I think were reserves. I would have to check that figure.

Captain WILLIAMS. And how many passed the examination and how many did not? How many were recommended for a commission or a warrant, and how many were not, as the result of the examination?

Commander ELLYSON. About 50 per cent, if you divide it between lighter-than-air and heavier-than-air. I think approximately 75 per cent of the heavier-than-air aviators qualified. All of the lighter-than-air except two failed to qualify.

Captain WILLIAMS. Have you any knowledge of a report from your station that certain officers were not preparing for the examination?

Commander ELLYSON. You mean an official report?

Captain WILLIAMS. Yes.

Commander ELLYSON. No, sir; I have not.

Captain WILLIAMS. I have no more questions at this time.

Senator WALSH. No record was kept of those who studied and those who did not?

Commander ELLYSON. No, sir.

Senator WALSH. There was no opportunity to determine how much a man privately devoted of his time to the study of books and lessons?

Commander ELLYSON. I was speaking only of those who attended the class and availed themselves of the school, which was not compulsory.

Senator WALSH. Exactly. You named certain officers who passed that took part in the bombing?

Commander ELLYSON. Yes, sir.

Senator WALSH. And one of them was Reichelderfer?

Commander ELLYSON. Yes.

Senator WALSH. He is an aerologist?

Commander ELLYSON. Yes, sir.

Senator WALSH. He is an expert in that?

Commander ELLYSON. Yes, sir.

Senator WALSH. And Owen is one of the officers you named; he is an ordnance officer?

Commander ELLYSON. Yes.

Senator WALSH. An expert in that particular line?

Commander ELLYSON. He was detailed for that particular duty.

Senator WALSH. Kindel, who took part in this bombing; was he especially selected for that?

Commander ELLYSON. I said he took part in the training for the bombing.

Senator WALSH. Did he take part in the bombing itself?

Commander ELLYSON. I do not know.

Senator WALSH. He was reduced from the rank of lieutenant, senior grade, to ensign?

Commander ELLYSON. I was under the impression that he was a lieutenant; I am not sure of his status. I am sure of the status of the other officers.

Senator WALSH. Do you know whether there were any men in the department who examined separately the papers of the aviators who had been attached to the lighter-than-air part of the service?

Commander ELLYSON. I do not know.

Senator WALSH. Is it not a fact that the examinations were entirely conducted by heavier-than-air experts rather than lighter-than-air experts?

Commander ELLYSON. I can not answer from my own knowledge, but I understand that the questions for aeronautics were made up by Lieutenant Commander Chevallier and Lieutenant Commander Lansdowne, lighter than air.

Senator WALSH. They covered aeronautic studies or subjects?

Commander ELLYSON. Yes, sir.

Senator WALSH. That is all.

Captain WILLIAMS. I have no more questions.

TESTIMONY OF COMMANDER B. K. COMAN, UNITED STATES NAVY.

(The witness was sworn.)

Captain WILLIAMS. Commander, the subject under investigation is the examinations for entrance into the permanent line of the Navy, held by the department in May of 1921. Will you state to the committee what duty you had that had any bearing on this official act, and what you know about the circumstances connected with it?

Commander COMAN. I was executive officer on the *Shawmut*, the airplane tender of the Atlantic fleet, from the latter part of the year 1919 up to the early part of July, 1920, which was approximately 10 months before this examination took place. Before I left the *Shawmut*, that is, 10 months before the examinations took place I got notice that the examination was to be held, and certain circulars regarding it had been received on board the ship and had been circulated to all of the officers on the ship, including reserve officers and temporary officers.

Senator WALSH. Wait a moment. Is not this in conflict with all we have heard before?

Captain WILLIAMS. It seems to me the dates are wrong.

Senator WALSH. I thought we all had agreed the notice did not go out until September.

Commander COMAN. Those were final notices; but the preliminary notices all reached us before.

Captain WILLIAMS. That is right, then.

Senator WALSH. Where is the copy of that notice?

Commander COMAN. There were final copies that went out either in September or October giving the scope of the examination.

Senator WALSH. A notice that the examination would be held.

Commander COMAN. Yes.

Senator WALSH. Was it disclosed in what they were to be examined?

Commander COMAN. Only generally.

Captain WILLIAMS. On the 28th of July, 1919, a report was made by an informal board, outlining instructions to be given the Naval Reserve Flying Corps officers preparatory to qualification for United States Navy commissions. A copy of that report was forwarded to the flying stations.

Commander COMAN. I did not say flying officers. I said the examination for reserves and temporaries, and the general scope of what they would cover was given.

Senator WALSH. I would like to see that notice. Proceed while I am looking at it.

Commander COMAN. At that time no classes had been formed on board the *Shawmut*. I left the ship very shortly after the preliminary notice had come out.

The CHAIRMAN. That was in July?

Commander COMAN. That was in June or July, the latter part of June or the early part of July, 10 months before the examination.

The CHAIRMAN. When was the examination held?

Commander COMAN. In May of the following year.

Senator WALSH. Under date of July 21, 1919, there is a communication from the Director of Naval Aviation to commanding officers of all naval air stations and naval aviation detachments giving instructions to commanding officers to prepare for these examinations and to outline courses of instructions, etc. But it is a communication to the commanding officers and not to the men. Am I correct about that?

Captain WILLIAMS. Yes. Go ahead, Commander. You were there in July, 1919.

Commander COMAN. I was there in July. The officers were also acquainted with the fact that legislation had been passed allowing a certain number of qualified officers to be taken into the Regular Navy. The matter was discussed.

Senator WALSH. Is this 1919 or 1920?

Commander COMAN. 1920.

Senator WALSH. You said in 1919. That is, the act that was passed June 4, 1920, and effective until the end of June, 1921, which permitted the taking over of reserve officers?

Commander COMAN. Yes, sir. I left the ship some time in July, 1920. No classes up to that time had been started.

Captain WILLIAMS. That is all we want, then. I thought you had some knowledge of it. I will not take any more of your time.

Senator WALSH. May I ask you, Commander, how long you have been in aviation?

Commander COMAN. I have been connected with it for about two years and a half.

Senator WALSH. What do you mean by being connected with it?

Commander COMAN. I am not a flier.

Senator WALSH. You were assigned from the line?

Commander COMAN. As executive officer of the *Shawmut*.

Senator WALSH. You have been assigned to the aviation service of the Navy for two years and a half as an executive officer?

Commander COMAN. Approximately for that time, but not as an executive officer during all that time.

Senator WALSH. And you have had no experience in flying?

Commander COMAN. That is true.

Senator WALSH. What executive positions have you held in that two years and a half?

Commander COMAN. I have been executive officer of the tender, and then I was assigned to duty in Washington.

Senator WALSH. What is your duty here?

Commander COMAN. In the Bureau of Aeronautics.

Senator WALSH. What character?

Commander COMAN. Administrative.

Senator WALSH. How many men are there doing administrative work in the Bureau of Aeronautics here?

Commander COMAN. I am allowed five in the division that I am in, but there are two officers there at present.

Senator WALSH. The division you are in?

Commander COMAN. Yes, sir.

Senator WALSH. What is your particular position in the Bureau of Aeronautics?

Commander COMAN. Administrative.

Senator WALSH. Are your men mostly nonfliers—your five men?

Commander COMAN. One is a flier.

Senator WALSH. And four are not?

Commander COMAN. I have not the others.

Senator WALSH. I thought you said there were five in your division.

Commander COMAN. I am allowed five. I have one flier and one other officer.

Senator WALSH. And one other officer?

Commander COMAN. Yes.

Captain WILLIAMS. You left the *Shawmut* in July?

Commander COMAN. Yes; I left the *Shawmut* in July, 1920.

Captain WILLIAMS. That is all I want.

TESTIMONY OF CAPT. PHILIP WILLIAMS, UNITED STATES NAVY.

(The witness was sworn.)

Captain WILLIAMS. I would like to read a short statement which I have prepared myself, and then I will present Lieutenant Commander Leighton, and after that Admiral Bryan. I want to state that my point of view is the point of view of the Assistant Chief of the Bureau of Navigation.

Senator WALSH. Of course, it is ordinarily the custom for the defense to be put in at the end of the case. However, as you told me some of these men were urgently needed in the department, I felt I ought to permit you to put them on, but it is usual not to make reply when only half the case is in.

Captain WILLIAMS. I thought you had finished.

Senator WALSH. No; but proceed.

Captain WILLIAMS (reading):

I wish to state that I do not at this time desire to burden the members of this committee with lengthy argument or to occupy your time with any extended account of all the circumstances connected with the examination of these gentlemen who have entered this complaint of discrimination and injustice.

We have heard with interest their testimony, and I am sure that it has, in part at least, been enlightening. We of the Navy are desirous of assisting the committee in its conclusions to the best of our ability, and if you will bear with us I feel that it will be conclusively shown that there has been no intentional discrimination or injustice; we will show by our witnesses why it is necessary for the best interests of the Navy to have our line officers fully qualified for all the duties of their rank, and why it would be a detriment to efficiency were we to appoint to commissioned rank a group of officers who have demonstrated their fitness for aviation duties only. I say this advisedly, for the examination records will show how totally unfit these gentlemen have proven themselves for duty other than that of aviation.

It was with all these considerations in mind that the department adopted the policy which has been subjected to so much criticism; we had in mind, not primarily the interests of individuals, but rather the interests of the naval service as a whole; and I think that you will agree that in a service such as the Navy, to produce a personnel which is as nearly efficient as the human agency can make it the interests of the individual must be subordinated to the whole.

The personnel of any service must, of necessity, be ever subjected to competition to produce efficiency, and the rule of the survival of the fittest must always govern. These gentlemen have failed in competition with their brother officers and, as is always the case of the unsuccessful, from the boy in school to the mature man, they feel that they have been unjustly treated. We feel, and feel it honestly, that they have been treated with every consideration possible; that fact I expect to show by the introduction of documentary evidence, which I shall be pleased to present later.

There is no disposition, I assure you, to disparage the worth of most of these young men as pilots of airships or their worth as qualified flying officers, but that is only the beginning. However, in this connection, after a review of the attendant circumstances, I can not help but feel that they, in spite of all assurances to the contrary, became convinced in their own minds that they would be required to demonstrate only their qualifications as aviators to be assured of retention in the permanent service. In fact, I think that in the testimony thus far produced the witnesses have stated that they believed their records while on active duty would be the governing factor in the examination. From what reasoning they arrive at such a false assumption I am unable to conceive. And furthermore, some of these complainants failed to qualify in their own specialty, that of aviation, as will be shown by the records which I hope to be able to submit.

Passing for the moment to the complaint that they were not given sufficient opportunity for preparation and study, I believe that the evidence which will be presented will not bear out their contention; such evidence will convince the committee that officers of the Naval Reserve Flying Corps were given more encouragement to prepare themselves than were any other class of candidates.

If it is now the pleasure of the committee, I desire to call as witnesses a few officers now on duty in Washington, first, one or two officers of long service and mature judgment, and, second, some two or three of our younger officers who have been successful in this competition for permanent appointment.

It is now desired to consider categorically the text of Senate Resolution 200.

It is stated that such examinations were unfair and unreasonable.

1. If the department had desired the services of these officers for aviation duties only, then there would have been grounds for complaint relative to unfairness in the examination. But at no time was intimation given that these gentlemen would be introduced into the Navy for those duties alone. In fact, as far back as July 21, 1919, notice was officially promulgated to the service that the candidates would be required to qualify in the various subjects pertaining to the Navy. This fact is borne out by the letter of the Director of Naval Aviation bearing that date, and which is attached, marked "A."

Senator WALSH. May I interrupt you on this matter, because I think it is rather vital? Are we not agreed that that order was never carried out?

Captain WILLIAMS. It would be necessary, I think, to read the order pretty carefully before we determine it. Suppose we read the order.

(The order referred to as "A" was read by Captain Williams, as follows:)

A.

NAVY DEPARTMENT,
OFFICE OF NAVAL OPERATIONS,
Washington, D. C., July 21, 1919.

From: Director of Naval Aviation.

To: Commanding officers, all naval air stations and naval aviation detachments.

Subject: Instruction of officers.

1. Owing to the temporary shortage of enlisted personnel assigned to naval aviation, there will be a period of comparative inactivity at naval air stations and aviation detachments. This will be an excellent opportunity for aviation officers to acquire knowledge of naval aviation and of the Navy in general.

2. It is directed that all commanding officers inaugurate courses of instruction in the various subjects pertaining to the Navy and naval aviation. In outlining these courses commanding officers will keep in mind the fact that class 5 naval reserve officers who will probably transfer to the Regular Navy when necessary legislation is passed will, at some future date, be required to qualify for line duties, or at least to possess a good general knowledge of the Navy and the duties of a naval officer. Therefore it is desired that full advantage be taken of this period of inactivity to give these officers as much instruction as possible along lines that will be beneficial to them in their career in the Navy. This will also offer the commanding officers a very good opportunity to judge the energy, interest, and capabilities of the officers under their command and to form an idea of their relative qualifications. Commanding officers will keep this in mind and will report results of the instruction and their estimates of the relative ability of the officers under their command.

5. It is directed that these courses be outlined and the instruction commenced at the earliest practicable date. Submit to this office a complete outline of the courses of instruction that will be given.

T. T. CRAVEN.

Senator WALSH. Excuse me, but is there such a communication addressed to commanding officers posted and made public property for everybody else at the station, or is it private to the commanding officer?

Captain WILLIAMS. I should say it is directed officially to him, the execution depending on his initiative and his energy.

Senator WALSH. From that date, July 19, 1919, to October, 1920, can you produce any evidence to show that anything different was done along that line by any commanding officer at any station?

Captain WILLIAMS. Until what date?

Senator WALSH. Between July, 1919, the date of the order, to October, 1920: Can you produce any evidence from any commanding officer that he took one step to instruct these young men as per that order?

Captain WILLIAMS. In order to produce direct evidence I will have to bring witnesses.

Captain MUSTIN. I can give some.

TESTIMONY OF CAPT. HENRY C. MUSTIN—Resumed.

Senator WALSH. What did you do as a commanding officer between July, 1919, and October, 1920?

Captain MUSTIN. I took command of the *Aroostook* on the Pacific coast in December, 1919, and I immediately started a policy of putting officers of the seaplane squadron on watch duty on the ship. Most of the duty was deck duty in port, but we had some opportunities to let them stand watch at sea. I took rather exceptional chances in letting them have the deck. In a run up to San Francisco I put some of these officers on duty in what we call the wet-nurse watch.

Senator WALSH. What date was the run to San Francisco?

Captain MUSTIN. Either the latter part of December, 1919, or early in January. On the run back from San Francisco I let them stand a straight watch, completely in charge of the ship, even at night at sea.

Senator WALSH. So you gave these men watch duty on ship during the period from 1919 until they began the school in October, 1920; is that the fact?

Captain MUSTIN. The actual school of instruction did not commence until we got information on what the character of the examination was to be; but I used every opportunity available to give certain officers actual practical experience on that ship. Unfortunately, that was limited to a very few.

Senator WALSH. It was very limited?

Captain MUSTIN. Yes, sir.

The CHAIRMAN. What was the thought that was in your mind when you gave them these duties?

Captain MUSTIN. That eventually those officers would have to qualify for line duties. I say I took exceptional chances in letting them stand watch at night at sea, having charge of the ship. I did that because my cabin was directly under the bridge, and I could sit out there and see what they were doing without their knowing it.

Senator WALSH. You say very few got this. How few?

Captain MUSTIN. Only certain officers. Those from one of my squadrons, the seaplane squadron.

Senator WALSH. How many officers got this watch duty you speak of?

Captain MUSTIN. I think every one of those officers passed the examinations when they finally came out.

Senator WALSH. We realize because of the training you gave your men they were successful, and we appreciate that. I want to find out how much watch duty they had.

Captain MUSTIN. Of watch duty at sea they had a very limited amount, because we did not do much cruising. When the ship went down to Balboa those same officers were flying; so they could not stand watch duty at sea, but I put them on watch duty again on the ship when we got there, and they had watch duty at the port.

Senator WALSH. How many men?

Captain MUSTIN. I can not say; but only a small proportion of my total organization. There were other squadrons that had duty of a nature that prevented their getting that particular type of instruction.

Senator WALSH. Are we agreed that on the Atlantic Coast Fleet no such steps were taken as Captain Mustin has testified to? I want to see if we can agree on this and have no dispute about it.

Captain WILLIAMS. I will introduce Lieutenant Leighton.

TESTIMONY OF LIEUT. B. G. LEIGHTON, UNITED STATES NAVY.

(The witness was sworn.)

Captain WILLIAMS. In what naval duty were you engaged in 1919 and 1920?

Lieutenant LEIGHTON. Between the early part of February, 1919, and about December 20, 1920, I was actively engaged in connection with the operation of the seaplane squadron with the Atlantic Fleet, on the *Shawmut*, as squadron commander of the flying boats which accompanied the fleet along the Atlantic coast to the West Indies on two cruises.

Captain WILLIAMS. To which ship, if any, were you attached?

Lieutenant LEIGHTON. To the U. S. S. *Shawmut*.

Captain WILLIAMS. Can you tell me anything of any instructions that were given to reserve aviators at that time?

Lieutenant LEIGHTON. During the entire period the reserve aviators who were attached to the *Shawmut* were assigned to duties which were directly connected with regular naval officers' duties. They were assigned regularly as watch officers, officers of the deck on board the *Shawmut* in port; they were detailed during ship target practice—at least 50 per cent of the officers were detailed during the time that the Atlantic Fleet was firing target practice—to go on board the battleships and observe the practice as it was under way.

Senator WALSH. When was that?

Lieutenant LEIGHTON. This was during 1919 and 1920.

Senator GERRY. What do you mean by observe the practice?

Lieutenant LEIGHTON. They were sent on board the ship and arrangements were made with the gunnery officers and the commanding officers of the battleships to permit them to visit various stations on the battleship during the actual firing.

Senator WALSH. That was the kind of duty they were given during this year under this order?

Lieutenant LEIGHTON. It did not follow this order; it was begun previous to this order and continued after the order.

Senator WALSH. Duties they would have had, anyway?

Lieutenant LEIGHTON. No, sir. They were duties they had to perform, being on ship. They were duties we considered necessary as the policy to train reserves effectively for naval duty.

Senator WALSH. So that, regardless of this order, you would have done what you did do?

Lieutenant LEIGHTON. Yes, sir; we considered it necessary.

Senator WALSH. That continued during the time that you were on the ship?

Lieutenant LEIGHTON. Yes, sir. That continued until December 21, 1920, at which time I left the ship.

Senator WALSH. Was there any instruction given these men, any lectures of any kind during this time in these subjects?

Lieutenant LEIGHTON. Not a regular course of lectures; no, sir. Immediately these orders came out they were posted on the bulletin boards and officers were made acquainted with them and they were informed of the general scope. I laid out a program of what subjects they should study and pointed out certain chapters in certain textbooks, or certain portions thereof, which would be applicable to these examinations. Those officers who were interested, although they were not attached to definite classes, were informed that any instruction they desired to have would be available. We had very few regular officers on the ship, and our duties were such that we could not lay out definite, regular classes.

Senator WALSH. I am not so much interested in the explanation of why you did not give your classes as I want to know what opportunity these men got.

Lieutenant LEIGHTON. They had plenty of opportunity to undertake study themselves.

Senator WALSH. But there was no course of lectures provided?

Lieutenant LEIGHTON. No.

Senator WALSH. No school planned for?

Lieutenant LEIGHTON. No, sir. They expressed themselves definitely as not desiring to spend the time—that is, probably 50 per cent of the officers expressed themselves definitely as not desiring to spend time to prepare for the examinations, because they did not think they would stay in the regular service.

Senator WALSH. Some that did not care to stay in regular service?

Lieutenant LEIGHTON. Yes, sir.

Senator WALSH. Of course, there were some who did not take the examination?

Lieutenant LEIGHTON. Yes, sir; a number.

Senator WALSH. That is all.

Captain WILLIAMS. That will do, lieutenant.

TESTIMONY OF CAPT. PHILIP WILLIAMS, UNITED STATES NAVY— Resumed.

Captain WILLIAMS (reading):

2. The act of June 4, 1920, limited the number of officers who could be transferred at 1,200, of whom not more than 500 could be taken from the Reserve Flying Corps. This limitation of number made it compulsory on the department to conduct a competitive examination. If this group of officers had been given an examination in aeronautics only, then the competitive feature could not have been maintained. It has been stated that Congress intended that 500 aviators be commissioned. This statement is not borne out by reading of the law, for it provides that of the 1,200 authorized not more than 500 should be for aviation. Therefore, it undoubtedly must have been the intent of the legislative body to provide for a competitive examination in order that those officers best qualified should receive appointment.

3. These complainants failed in not one but in a number of subjects, which conclusively shows that they have not gained the general knowledge of the Navy expected of them. Their knowledge is apparently only that of the art of flying, and they are therefore of small value to the Navy as a whole.

AN INSUFFICIENT OPPORTUNITY FOR PREPARATION WAS AFFORDED.

1. This contention is not borne out by the facts in the case, as will be shown by the evidence which is introduced at this time, and which shows that officers of the Naval Reserve Flying Corps received much greater encouragement for

study and preparation than was afforded any other class of applicants. In August, 1919, the Bureau of Navigation addressed the attached letter, marked "B," to all naval air stations which outlined a course of instruction to be given the officers of the Naval Reserve Flying Corps. It will be noted that this letter directed all commanding officers to carry on instructions for this class of officers.

The forwarding letter of Exhibit B is signed H. B. Cecil, dated August 8, 1919, and reads:

B.

AUGUST 8, 1919.

To: All Naval Air Stations.

Subject: Course of instruction to be given Naval Reserve Flying Corps officers.

Reference: (a) Nav. Air 82-171 of 21 July, 1919.

Inclosure: (A) Copy of report of board organized at Naval Air Station, Pensacola, Fla., for outlining the instruction given Naval Reserve Flying Corps officers.

1. Enclosure (A) is forwarded herewith in connection with the instruction to be given Naval Reserve Flying Corps officers during the present period of inactivity at all air stations. Commanding officers are directed to carry on instruction of reserve officers as nearly in accordance with the outline contained in the inclosure as is practicable.

H. B. CECIL.

A copy of this was then sent to all naval air stations, with a copy of the report of the board which examined this most important subject, dated the 20th of July, 1919, which reads:

UNITED STATES NAVAL AIR STATION,
Pensacola, Fla., July 28, 1919.

From: Informal board for outlining instruction to be given Naval Reserve Flying Corps officers preparatory to qualification for U. S. Navy commission.

To: Commandant.

Subject: Report.

Reference: (a) Nav. Air 82-171 of 21 July, 1919.

(b) Commandant's letter 73112: 73595 of 24 July, 1919.

1. The board met at 10 a. m., July 26, pursuant to reference (b).
2. The board first considered the subjects particularly requiring attention in this connection. We would list these subjects as follows: Navigation; seamanship; steam engineering; ordnance; electricity and radio; fundamentals of Naval Service, including nomenclature and customs of sea-going service, including also the organization of the Navy Department and of the fleets and typical organization of a ship; military and international law; general procedure regarding supply of and accounting for material. Title "A." Title "B," Title "X," etc., inventories, custody receipts, requisitions; regulations covering pay and allowances; claims; general routine reports; official communications.

3. It is our belief that the scope of this instruction is such as to require an organization similar to that of ground instruction for student officers with similar requirements as to exact schedule of daily classes, careful attention to note books, examinations, and grading.

4. Officers must be divided into two watches for this instruction in order not to discontinue such flight operations as may be possible here, while classes are in progress.

5. On days of no flying both watches can be instructed as a single class, necessary upkeep work being supervised by a warrant officer.

6. Each watch should receive one to two hours' classroom work per day, and be required to spend at least two hours additional on this course of instruction outside of class. This would include study of textbooks and copying and study of lecture notes. It is our estimate that these courses can be covered on the above general plan and as per appended outline within two to three months. Outline of courses is inclosed.

E. F. JOHNSON,

Commander, United States Navy.

STANLEY V. PARKER,

Captain, United States Coast Guard.

R. M. STRADER,

Lieutenant, United States Naval Reserve Force.

Senator WALSH. What is the date of that letter or report?

Captain WILLIAMS. The 20th of July, 1919.

Senator WALSH. Is there any doubt in our minds whatever that absolutely nothing was done under that order until the following year, except what has been testified to here about letting the men go on watch, those men who happened to be on boats?

Captain WILLIAMS. I have some more letters.

The CHAIRMAN. This letter was sent to all the naval air stations.

Captain WILLIAMS. Yes, sir.

The CHAIRMAN. The Senator says that no action was taken. Do you know whether the boys were notified of this examination at that time?

Captain WILLIAMS. I have complete and detailed reports of the action taken. I can not say yet whether it covered all cases, but I have further documents which will bear on the case.

The CHAIRMAN. This notice was sent to all naval air stations, you say. Have you any record of the number of men desiring to take this examination who at that time were on land duty and other duties, where they were not notified?

Captain WILLIAMS. I have no such record. I will endeavor to get it.

I desire to call attention to one thing, that these papers were handled as is customary in all military service. This is the report of a board examining a problem, namely, the instruction of Reserve Flying Corps officers, and is not an order. The order is the letter forwarding it, which reads. "Inclosure A is forwarded herewith in connection with the instruction to be given Naval Reserve Flying Corps officers during the present period of inactivity at all air stations. Commanding officers are directed to carry on instruction of reserve officers as nearly in accordance with the outline contained in the inclosure as is practicable."

Senator WALSH. What date is that letter?

Captain WILLIAMS. That is the forwarding letter, of date August 8, 1919.

Senator WALSH. Is it not a fact that we have no evidence whatever here, even from this man who is evidently more interested than anybody else, who established schools and gave more attention to this problem—is it not a fact that we have no evidence whatever in this case, and you can not produce it, that any schools were established and carried out under that suggestion until October, 1920, one year and two months after that letter?

The CHAIRMAN. Senator, I would like to ask one question, if the evidence was that he did not take charge of the station on the Pacific coast until the 1st of January, 1920?

Captain MUSTIN. December 8, 1919, sir.

Senator WALSH. And even his school did not start until the following October.

The CHAIRMAN. Was there any instruction given, or any notice given, to your knowledge, previous to your taking charge?

Captain MUSTIN. That I can not say.

Senator WALSH. That ought to be determined here; it is so fundamental.

Captain MUSTIN. My organization was put together very shortly before I took command.

Senator WALSH. When did you begin your classes?

Captain MUSTIN. As soon as we learned what the scope of the examinations would be.

Senator WALSH. When was that?

Captain MUSTIN. That was in the late summer or the early autumn of the year preceding the examination.

Senator WALSH. That would be 1920. Is there any dispute about that? That so far as these boys were getting any benefit of whatever the instruction of that order was, they absolutely got none whatever until October, 1920, in the matter of attending schools—three months after that letter.

Captain WILLIAMS. So far as I know, there has been no such evidence produced.

Senator WALSH. This man himself testified to that. That is what he says, that he started no schools or classes—

Captain WILLIAMS. That is what I say. I will accept the negative statement, that there has been no evidence produced to show that any school was started before that time. [Reading:]

2. On July 6, 1920, the Bureau of Navigation issued a circular letter stating that the examinations were to be held. This letter should have served as a

warning for all candidates to prepare for the examination. The letter is attached, marked "C."

(The letter referred to is here printed in full as follows:)

C.

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., July 6, 1920.

From: Bureau of Navigation.
To: All Ships and Stations.

Captain WILLIAMS. That is our customary way of communicating with all officers. [Reading:]

Subject: Transfer of Temporary and Reserve officers to the Regular Navy.

1. Twelve hundred temporary and Reserve officers are to be transferred to the permanent line of the Navy in accordance with the act of Congress approved June 4, 1920. Staff officers will be transferred in proportion.

2. The selection of these officers and their introduction into the permanent service is one of the most difficult and important personnel problems with which the Navy has had to deal in recent years.

3. The responsibility for making the selections rests entirely with the regular officers of the Navy. If they do not devote sufficient time and thought to this duty, a very serious damage to personnel standards will result. The bureau desires the earnest cooperation of all officers in this important duty.

4. It is intended to publish the conditions of the examination very shortly. The date will be sufficiently advanced to give applicants time to prepare and also to permit senior officers, under whom applicants are serving, to make careful and well considered fitness reports.

Captain WILLIAMS. Those are your records showing the estimate of the senior officer of his junior. [Reading:]

"5. It is directed that as soon as information concerning this examination is issued all possible means be taken to assist the applicants to prepare themselves for entrance into the permanent Navy. Schools and classes will be established, hours regulated, instruction given, and supervision exercised as much as practicable.

"6. All officers who can materially assist in the solution of this problem, are requested to report to the bureau the measures they have adopted.

"THOMAS WASHINGTON."

Senator GERRY. Captain, you just stated before reading that letter that it was notice to the candidates that they should prepare for the examination. As I understand it, that letter, which says that they will be given further notice as to what they will be examined in, is a subsequent letter. That subsequent letter did not come out until October 20, did it?

Captain WILLIAMS. In August, 1920.

Senator GERRY. That letter was dated August, 1920?

Captain WILLIAMS. This letter is dated July 6, 1920.

Senator GERRY. July 6, 1920, and it came out in October?

Captain WILLIAMS. No, sir; in August.

Senator WALSH. What date in August?

Senator GERRY. I think we are talking at cross purposes. This letter is dated when?

Captain WILLIAMS. The 6th of July, 1920.

Senator GERRY. Then the syllabus, showing what the examinations were to be, came out in October, 1920?

Captain WILLIAMS. August, 1920.

Senator WALSH. What date in August?

Mr. SCHUYLER. That letter, unfortunately, was not dated at the time.

Senator WALSH. Was it dated back?

Mr. SCHUYLER. No; it was not dated back. It does not bear any date now.

Senator WALSH. Is there no way of knowing when that order was sent out from your department to these stations?

Mr. SCHUYLER. Only the memory of the people that handled it.

Senator GERRY. By whom was that letter signed?

Mr. SCHUYLER. Admiral Washington.

Senator WALSH. If the Navy sent an order to open fire without dating it, I do not know what would happen.

Senator GERRY. This letter you have just read was signed by Admiral Washington?

Captain WILLIAMS. Yes, sir.

Senator GERRY. Subsequent to this letter there was another letter sent out which we have called the syllabus, which contained the subjects on which the candidates were to be examined. What was the date of that subsequent letter?

Mr. SCHUYLER. That is the letter that does not bear date.

Senator GERRY. The subsequent letter is the letter that does not bear a date, that letter we have called the syllabus?

Mr. SCHUYLER. Yes, sir.

Senator GERRY. When does the department believe it was sent out?

Mr. SCHUYLER. In August, 1920.

Senator GERRY. At the same time that this letter was sent out?

Mr. SCHUYLER. This is July, 1920.

Senator GERRY. A month later?

Mr. SCHUYLER. Yes, sir.

Senator GERRY. So they could not prepare because they did not know what preparation would be required until the second letter containing the syllabus was sent out; and the date of that is not known, but it is presumed to be August, 1920. Am I correct in that statement?

Captain WILLIAMS. This letter states that this date will be sufficiently advanced to give applicants time to prepare and also to permit senior officers, etc.

Senator GERRY. Exactly. So the first letter was of no practical use. The letter on which they would have to base their preparation is the second letter. Now I was trying to find out the date of that second letter.

Captain WILLIAMS. The second letter is August, 1920.

Senator GERRY. The second letter is presumed to be August, 1920, although by some error it was not dated.

Captain WILLIAMS. Yes, sir.

Senator WALSH. Does not that letter you have just read absolutely confirm the contention made here, because it speaks about schools being established, that there were none established at that time? If there had been schools established the year before, there would have been reference made in this letter to reestablishment of schools.

Captain WILLIAMS. I have here and am about to read the individual reports of the schools, the methods of instruction carried on at each naval air station.

Senator WALSH. Does that report go back of that letter? Does that report go back of July 6, 1920?

Captain WILLIAMS. U. S. S. *Mugford*, United States Naval Air Station. Pensacola; Naval Air Station, Hampton Roads; Naval Proving Ground, Indianhead; United States Naval Air Station, San Diego, Calif.

Senator WALSH. That does not answer my question. I am calling attention to this letter of July 6, 1920. Will you read again that paragraph to commanding officers?

Captain WILLIAMS. "It is directed that as soon as information concerning this examination is issued, all possible means be taken to assist the applicants to prepare themselves for entrance into the permanent Navy. Schools and classes will be established, hours regulated, instruction given, and supervision exercised as much as possible."

Senator WALSH. If schools and classes had been established under that letter the year before, why were they not omitted in this letter?

Captain WILLIAMS. This was an additional precaution.

Senator WALSH. Do you claim that schools and classes were in operation at that time anywhere?

Captain WILLIAMS. Of my personal knowledge I am unable to state.

Senator WALSH. You have all the records; you have all these papers.

Captain WILLIAMS. I am about to read the record, the individual records.

Senator WALSH. Have you some doubt about it, as to whether there were schools and classes at that time?

Captain WILLIAMS. I have some doubt as to the character of the instruction before October, 1920.

Senator WALSH. So have I. So we are agreed.

Captain WILLIAMS. As to the character of the instruction.

Senator GERRY. One of these very important letters went out undated. Is not that a very unusual occurrence in any department of the Navy?

Captain WILLIAMS. Very unusual, but due to the fact that some 1,600 circulars had to go out. I should think the exact date of the letter can be fixed by the mailing operation.

Senator GERRY. What system do you have in regard to dating circulars in your department? Does not every circular that goes out have to be dated?

Captain WILLIAMS. No, sir.

Senator GERRY. You send out circulars without dating them?

Captain WILLIAMS. We have done so.

Senator GERRY. And that is the custom of the department?

Captain WILLIAMS. Not always; some are dated and some are not. I am speaking of the past.

Senator GERRY. It seems to me it is a very extraordinary method of carrying on business, not dating your memoranda or circulars sending out your orders.

Mr. SCHUYLER. Senator, in this case it was undoubtedly the intention to date the letter.

Senator GERRY. I am not talking about the intention. A department is not run in a very businesslike method which allows a slip like this to occur.

Mr. SCHUYLER. We all agree it is very unfortunate and the date should have been there.

Senator GERRY. I think it is very bad management.

Senator WALSH. It is the efficient permanent officers of the line.

Captain WILLIAMS. There are many circulars sent out which are not dated. Many circulars are sent out from every Government department that are not dated. There are specifications for material that are not dated and should not be dated. This one should have been dated.

Senator GERRY. That is a different thing. This was practically an order, an instruction as to something that was to be done.

Captain WILLIAMS. This should have been dated; there is no doubt about that.

Senator WALSH. Let us proceed.

Captain WILLIAMS. Its date can be fixed. This date can be fixed at August, 1920. [Reading:]

3. In August, 1920, a circular letter was forwarded to all officers eligible for the examination, setting forth the qualifications and the general scope of the examinations. This letter was issued some nine months prior to the date of the examination so that all candidates had considerable time for study and preparation. The letter is attached and marked "D."

(The letter referred to is here printed in full, as follows:)

D.

[Navy Department, Bureau of Navigation, Washington, D. C.]

CIRCULAR OF INFORMATION TO COMMISSIONED OFFICERS ELIGIBLE FOR TRANSFER TO THE PERMANENT LINE OF THE NAVY IN ACCORDANCE WITH SECTIONS 3 AND 5 OF THE ACT OF 4 JUNE, 1920.

1. Pertinent parts of sections 3 and 5 of the naval appropriation act approved 4 June, 1920, are quoted herewith:

"SEC. 3. That officers holding temporary commissioned and warrant ranks in the Navy and members of the Naval Reserve Force of commissioned and warrant ranks shall be eligible for transfer to an appointment in the permanent grades or ranks in the Navy for which they may be found qualified not above that held by them on the date of transfer, but not to exceed a total of 1,200 commissioned officers in the line, of which number 500 may be appointed from class 5, Naval Reserve Flying Corps, with proportionate number in all Staff Corps as now authorized by law, except that the Medical, Dental, and Supply Corps shall be entitled to such additional numbers as are necessary to make up the full quota of officers in those corps, as now authorized by law: *Provided*, That officers so appointed to the line of the Navy shall take rank in accordance with their precedence while holding temporary rank, and members of the Naval Reserve Force of commissioned and warrant ranks found qualified for a given rank shall be arranged according to their precedence among themselves and commissioned in the permanent service next after the lowest temporary officer who qualifies for the same rank and is appointed in accordance with the provisions of this act."

"SEC. 5. That officers appointed under any of the foregoing provisions shall be not more than 35 years of age when so appointed to the line of the Navy, Construction Corps, or Supply Corps, and not more than 43 years of age when so appointed to the Corps of Chaplains, or to the Medical, Dental, or Civil Engineering Corps: *Provided*, That said age limit shall be increased in the cases of officers who have rendered prior service as paymaster's clerks, or as mates, or as warrant or commissioned officers in the naval service to the extent of all prior naval service."

2. Officers holding temporary commissioned rank in the United States Navy and members of the Naval Reserve Force with commissioned ranks who are not more than 35 years of age, or whose age is not greater than 35 years plus their total former naval service, who qualify by the required examination, are eligible for transfer to the permanent commissioned line of the Navy.

3. The examination will establish the physical, mental, moral, and professional fitness of eligible candidates to perform the duties both at sea and on shore of officers of corresponding ranks in the Regular Navy not above lieutenant. The examination will be held in May, 1921. All applications for authority to take this examination must be made out in duplicate on the inclosed form and be received in the Navy Department by 15 December, 1920.

4. Within the limit of the 1,200 officers allowed by law: (a) Officers holding temporary commissions who may qualify for the rank of ensign, lieutenant (junior grade), or lieutenant will be appointed in such rank in their present position on the lineal list; (b) reserve officers who may qualify for the rank of ensign, lieutenant (junior grade), or lieutenant will be arranged among themselves according to the dates of their present respective commissions and will be commissioned in the rank for which qualified next after the lowest temporary officer who qualifies and is appointed in such rank.

5. Answers to examination questions will be marked on a scale of 4.

6. To be satisfactory, a mark of 2.5 or above must be made on each subject.

7. The following weights for the several subjects are to be assigned:

(a) Records.....	300	(f) Engineering.....	100
(b) Navy regulations.....	50	(g) Electricity.....	50
(c) Navigation.....	100	(h) Military law.....	50
(d) Seamanship.....	100	(i) International law.....	50
(e) Ordnance and gunnery.....	100	(j) General education.....	100

8. The examination will be written, the questions being of the following general character and scope:

EXAMINATION FOR ENSIGN.

(b) Navy regulations:

(1) Chapters I, II, III, X, XI, XII, XIII, XIV, XXII, XXIV, XXV, XXVI, XLI.

(2) Emergency drills—Fire, collision, abandon ship.

(c) Navigation (except nautical astronomy):

(1) Rules for preventing collisions; International and inland waters.

(2) System of buoyage in the United States.

(3) Use of charts.

(4) Describe a magnetic compass.

(5) Describe how to lay a course.

(6) What is deviation and variation?

(7) Use of pelorus.

(8) How are bearings taken and how is the position of ship determined by same?

(9) Use of hand lead and precautions to be taken in obtaining soundings when using hand lead.

(10) How are soundings used to fix position?

(11) Use of mercurial barometer and how read.

(12) Ability to navigate by D. R.

(13) What is chip log? How used?

(14) Use of patent log.

(15) How adjust sextant?

(16) What is an azimuth circle? How used?

(17) Use of Sir William Thompson's sounding machine.

* To be determined from a consideration of papers submitted on all subjects.

(18) How is chronometer tick obtained at noon?

Navigation (nautical astronomy, sights, etc.):

Work out the following navigational problem:

At 8 a. m., April 13, 1920, a vessel took departure from Ambrose Channel light vessel. (Lat. $40^{\circ} 28' 30''$ N., Long. $73^{\circ} 50' 15''$ W.)

Sailed thence on course S. E. true at 10 knots until local apparent noon when the navigator observed sun on the meridian as follows: $58^{\circ} 56' 30''$; I. C. $=+1^{\circ} 00'$ Ht. eye 40 ft. Continued course S. E. true, speed 10 knots until 4 p. m., when observed sun as follows: W= $4h. 00m. 00s.$; C-W $4h. 50m. 18s.$ Chro. slow $00m. 01s.$ $28^{\circ} 25' 30''$ I. C. $+1^{\circ} 00''$. Ht. eye 40 ft. Continued same course and speed until about 7 p. m., when obtained following simultaneous observations of Polaris and Capella (*a Aurigae) W= $7h. 00m. 00s.$; C-W $4h. 50m. 18s.$; chro. slow $00m. 01s.$; I. C. $+1^{\circ} 00''$. Ht. eye 49 ft. Alt. of Polaris $38^{\circ} 58' 30''$. Alt. of Capella $=53^{\circ} 31' 30''$.

Find:

- (1) Noon D. R. Position with interval to noon.
- (2) True noon position.
- (3) Current from 8 a. m. to noon.
- (4) 4 p. m., D. R. position.
- (5) Work line (Sumner or St. Hilaire) at 4 p. m.
- (6) True position at 4 p. m.
- (7) 7 p. m., D. R. position.
- (8) True position at 7 p. m.
- (9) Is Capella east or west of meridian? How do you know?
- (d) Seamanship:
 - (1) Types of boats in Navy and their equipment.
 - (2) Handling of boats under oars and sail.
 - (3) Boat salutes.
 - (4) Hoisting boats.
 - (5) Man overboard—lowering and handling of lifeboats.
 - (6) Ground tackle—how care for—how is chain marked?
 - (7) Ship's log—what entries are made therein?
 - (8) Duties of officer of deck.
 - (9) Etiquette of side.
 - (10) Routine ceremonies (colors, etc.).
 - (11) What orders are given to steersman—and how?
- (e) Ordnance and gunnery:
 - (1) School of the squad and company in infantry.
 - (2) School of the section and battery in artillery.
 - (3) Precautions to be taken in handling small arms and their ammunition.
 - (4) Describe any naval gun with which you are familiar.
 - (5) Describe projectile, fuses, primers of any naval gun with which you are familiar.
 - (6) Describe care and preservation of battery.
- (f) Engineering:
 - (1) Duties of engineer officer as required by Navy Regulations.
 - (2) Briefly describe a modern type of reciprocating engine.
 - (3) Briefly describe a modern steam turbine.
 - (4) Sketch and describe a modern boiler.
 - (5) Name auxiliary machinery used in connection with ship's power plant; describe a feed water heater.
- (g) Electricity:
 - (1) Define voltage, kilowatt, resistance, ground, torque.
 - (2) Where are shunt motors used aboard ship? Where series? Why?
 - (3) What is meant by operating dynamos in parallel? How done?
 - (4) What is a motor generator and for what purpose is it used aboard naval vessels? How do you tune a radio set?
- (h) Military law:
 - (1) What punishments may a commanding officer inflict?
 - (2) What are the limitations as to the use of irons?
 - (3) When the captain is not in the ship, what are the limitations of the officer in accidental command as to punishments?
 - (4) Who may order a summary court-martial?
 - (5) How is a summary court-martial constituted?
 - (6) Who may order a deck court?
 - (7) How is a deck court constituted?
- (i) International law:

- (1) How determine a vessel's nationality?
- (2) What papers should be found upon a private vessel?
- (3) Define blockade? What notification is necessary?

EXAMINATION FOR LIEUTENANT (JUNIOR GRADE).

- (b) Same as ensign with following additions:
 - (1) Duties of divisional officer.
 - (c) Navigation. Same as for ensign.
 - (d) Seamanship. Same as for ensign and in addition:
 - (1) Getting underway and coming to anchor; a general description of.
 - (2) What signal systems are used in the Navy?
 - (3) Effect of right and left handed propellers.
 - (4) Turn right-handed single-screw steamer in limited space.
 - (e) Ordnance and gunnery. Same as for ensign, and in addition:
 - (1) School of battalion in infantry.
 - (2) School of battalion in artillery.
 - (3) Organization of landing force.
 - (4) Care and preservation of powder and ammunition on board ship. (Navy Regulations.)
 - (5) Storage of ammunition on board ship.
 - (6) Gunnery instructions.
 - (7) Safety precautions.
 - (8) Morris tube and dotter. Description, purpose, use.
 - (f) Engineering. Same as for ensign, with the following additions:
 - (1) Describe what is known as the "mechanical oil-burning system."
 - (2) Describe an internal combustion engine.
 - (3) How is boiler corrosion prevented?
 - (g) Electricity. Same as for ensign, with the following additions:
 - (1) Describe a secondary battery.
 - (2) What is a transformer and what is a converter?
 - (3) Describe any modern radio system.
 - (h) Military law. Same as for ensign.
 - (4) International law. Same as for ensign.

EXAMINATION FOR LIEUTENANT.

- (a) Same as for ensign and lieutenant (junior grade).
- (b) Same as for ensign and lieutenant (junior grade), with following additions:
 - (c) Navy Regulations, Chapters XII, XIII, XX, XXI, XXIII.
 - (c) Navigation. Same as for ensign and lieutenant (junior grade), with the following additions:
 - (1) Practical method of compensating compass for deviation (rectangular method).
 - (2) Determination of compass error by—use of magnetic range; bearings of terrestrial object; bearings of sun.
 - (3) Latitude by the sun reduction to the meridian (using formula $H=H'-at 2$).
 - (4) What is meant by "doubling the angle on the bow"?
 - (5) What is danger bearing?
 - (d) Seamanship. Same as for ensign and lieutenant (junior grade), with following additions:
 - (1) How moor in stream with mooring swivel? How clear hawse?
 - (2) How handle small vessel in heavy weather?
 - (3) What is a sea anchor? How improvise a sea anchor on destroyer, material on hand?
 - (4) Discuss laws of storms and state precautions necessary in handling a low-powered steamer; a high-powered steamer. (Plot track of storm shown by diagram.)
 - (5) What use may be made of oil in heavy weather at sea? Describe.
 - (e) Ordnance and gunnery. Same as for ensign and lieutenant (junior grade), with following additions:
 - (1) Describe system of fire control.

(2) What are excaliber and subcaliber attachments? Their object and how used.

(f) Engineering. Same as for ensign and lieutenant (junior grade), with following additions:

(1) What are duties of engineer officer in making preparation for coaling ship, during coaling, and after coal is on board? What precautions should be taken against fire? What should be done in case of indication of fire in bunkers?

(2) Describe an ice machine as fitted on board naval vessels.

(g) Electricity. Same as for ensign and lieutenant (junior grade), with following additions:

(1) What precautions are necessary to safeguard turrets from possible danger due to short circuits?

(2) If a ship's masts are destroyed, how would you arrange to send radio signals?

(h) Military law. Same as for ensign and lieutenant (junior grade), with following additions:

(1) Who may order G. C. M.?

(2) How is the court constituted?

(3) What are the limits of sentences by S. C. M.?

(i) International law. Same as for ensign and lieutenant (junior grade), with following additions:

(1) How are belligerent vessels interned?

THOMAS WASHINGTON.

Approved:

JOSEPHUS DANIELS.

APPLICATION FOR TRANSFER TO REGULAR NAVY.

(Submit in duplicate.)

RESERVE ACTIVE. TEMPORARY.

(Cross one out.)

From: ——— (T), U. S. N. Class ———, U. S. N. R. F. U. S. S. ———.

To: Bureau of Navigation, Navy Department, Washington, D. C.

Via: ——— (official channels).

Subject: Authority to take examination for the line of the Navy.

Reference: (a) Act of June 4, 1920.

1. I hereby request authority to appear before a supervisory board for examination for the rank of ——— in the line of the Navy in accordance with sections 3 and 5 of the act of June 4, 1920.

Date of birth ———. Age ———. Date of first enrollment or enlistment ———. Service as enlisted or enrolled man ——— years ——— months ——— days. Date of first commission ——— as ——— (indicate rank). Date of present (provisional, temporary) commission ——— as ——— (indicate rank). Stations and vessels during World War to present date. (Name all commanding officers) ———. Trade or profession ———. Education: (a) High school ———; (b) college or university ——— (indicate graduation or how long in attendance). Seagoing experience other than naval ———.

If you have submitted a prior application, resubmit on this form. Submit in duplicate.

[First indorsement.]

From: Commanding officer.

To: Bureau of Navigation.

Subject: Forwarded.

[Second indorsement.]

From: Bureau of Navigation.

To: ———.

1. When directed by your commanding officer, you are hereby authorized to report to the president of a board of medical examiners for physical examination, and if found physically qualified, further to the president of supervisory

board for professional examination, for entry into the permanent line of the Navy as requested above. If your station is changed subsequent to receipt of this authorization and prior to your examination, you will at once inform the commanding officer of your new station of this authorization.

APPLICATION FOR TRANSFER TO REGULAR NAVY.

(Submit in duplicate.)

RESERVE INACTIVE.

From: _____ Class _____, U. S. N. R. F.
 To: Bureau of Navigation, Navy Department, Washington, D. C.
 Subject: Authority to take examination for the line of the Navy.
 Reference: (a) Act of June 4, 1920.

1. I hereby request authority to present myself to the commandant (_____ naval district or navy yard _____) for examination for the rank of _____ in the line of the Navy in accordance with sections 3 and 5 of the act of June 4, 1920.

Date of birth _____ Age _____ Date of first enrollment or enlistment _____ Service as enlisted or enrolled man _____ years _____ months _____ days. Date of first commission _____ (indicate rank). Date of present (provisional) commission _____ as _____ (indicate rank). Stations and vessels during World War. (Name all commanding officers) _____ Trade or profession _____ Education (a) High school _____ (b) College or university _____ (indicate graduation or how long in attendance). Seagoing experience other than naval _____

If you have submitted a prior application, resubmit on this form. Submit in duplicate.

[First indorsement.]

From: Bureau of Navigation.
 To: Commandant _____ Naval District. Commandant, Navy Yard _____

1. When directed by you the above-named officer is hereby authorized to present himself to you for first, physical examination and second, professional examination for entry into the permanent line of the Navy as requested above.

2. Inform the above-named officer of this action and direct him to keep you informed of his address.

Senator WALSH. Does it say anything in that letter about establishing schools?

Captain WILLIAMS. I do not think so. I do not think that is the object of it.

Senator WALSH. This is a syllabus to the candidates stating about what subjects they would be examined in?

Captain WILLIAMS. Yes.

Senator WALSH. Does this include the sample questions that have been referred to?

Captain WILLIAMS. This includes all the sample questions which have been referred to.

The CHAIRMAN. You know, Captain, do you, that that was sent out in August, 1920?

Captain WILLIAMS. Yes, sir; August, 1920. [Reading:]

"In this connection the committee is advised which questions on the examination in May, 1921, were identical with those outlined in the circular sent out in August of 1920:

"In steamship, $3\frac{1}{2}$ questions out of 6 asked were the same as those in the sample.

"In ordnance and gunnery, $\frac{1}{2}$ question out of 4 in Group E and $\frac{1}{2}$ question out of 5 in Group F were the same as those in the sample.

"In navigation and piloting, 4 questions out of 7 were the same as those in the sample.

"In marine engineering, $3\frac{1}{2}$ questions out of 6 were the same as those in the sample.

"In military law, 2 questions out of 7 were the same as those in the sample.
 "In international law, 1 question out of 4 was the same as those in the sample.

"4. On November 9, 1920, the Bureau of Navigation issued the attached letter marked 'E' relative to the instructions for temporary and reserve officers."

The CHAIRMAN. Was that order dated?

Captain WILLIAMS. This is dated the 9th of November, 1920.

(The letter referred to is here printed in full, as follows:)

E.

NOVEMBER 9, 1920.

From: Bureau of Navigation.

To: Commander air detachment, Atlantic Fleet; commander air detachment, Pacific Fleet; and all naval air stations.

Subject: Instruction of temporary and reserve officers for the examinations May, 1921.

1. It is requested that the Bureau of Navigation be notified as to what instructions or school work is being carried on in order to prepare the officers (temporary and reserve) for the examinations to be held in May, 1921.

Above letter sent to commanding officers naval air stations, Anacostia, D. C.; Cape May, N. J.; Chatham, Mass.; Coco Solo, Canal Zone; Hampton Roads, Va.; Pearl Harbor, Hawaii; Pensacola, Fla.; Rockaway Beach, Long Island, N. Y.; San Diego, Calif.

Captain WILLIAMS (reading):

"5. In reply to that letter it is desired to introduce the attached correspondence marked "(F)" which is conclusive of the fact that schools of instruction were established and that the officers of the Navy rendered great assistance to the officers of the Naval Reserve Flying Corps in order that they might be prepared for the examination."

(The correspondence referred to is here printed in full as follows:)

F.

UNITED STATES PACIFIC FLEET AIR FORCE,
 U. S. S. "MUGFORD,"

San Diego, Calif., November 16, 1920.

From: Commanding officer.

To: Bureau of Navigation.

Reference: (a) Bu.Nav. letter N315-RAB:AB.

Subject: Instruction of temporary reserve officers for the examinations May, 1921.

The reserve officers attached to the NC Seaplane Division are receiving 2 hours instruction each day on different subjects from academy graduates.

JOHN J. BARTHOLDI.

UNITED STATES NAVAL AIR STATION,
Pensacola, Fla., November 18, 1920.

From: Commandant.

To: Bureau of Navigation.

Subject: Report on instruction and preparation of reserve and temporary officers for the examination for admission to the regular Navy.

Reference: (a) Letter of Bu.Nav. N315-RAB:AB, dated November 9, 1920.

1. Upon receipt of the instructions and outline of examination from the bureau the officers affected thereby were informed of the necessary details and the method of instruction discussed with them. As a result a semi-compulsory system of instruction was adopted by a vote of the officers concerned.

2. A course of instruction has been laid out to cover a period of 24 weeks. Twenty weeks of this are devoted to navigation, and other subjects are carried simultaneously with navigation (except during the first four weeks). In this way every subject is covered as thoroughly as time permits and four weeks are allotted to a general review at the end of the course. Inasmuch as possible the outline has been prepared and the instruction in all subjects approached from the viewpoint of one to whom all subjects are completely new.

3. As the officers preparing for the examination are all engaged more or less constantly in regular station work, the course has been arranged for at least two hours each night home study. At the beginning of each week a lesson sheet is given every student. These lesson sheets have the pages of texts to be studied for each night of the week and contain under each day's assignment "typical" question on the subject matter assigned for duty, as well as numerous problems in navigation.

4. In addition to the night study, brief lecture periods of one-half hour each are held daily at 12.30 and 4.30 p. m. Owing to the desire not to have these lecture periods conflict with regular station work they are, it will be noted, held during the lunch hour and after regular working hours. Students can attend either lecture at their convenience. These periods are devoted to, first, explanations of possibly obscure points in the daily lesson; second, criticism of previous work; and, third (if time permits), the answering of questions.

5. An officer of the Regular Navy has been detailed exclusively to this instruction work. Students who are backward or do not have their difficulties sufficiently cleared up during the lecture period bring these troubles to the instructor for individual help.

6. Navigation problems which are worked at home are turned in to the instructor for correction and comment and are then returned.

7. The semicompulsory system operates as follows: Officers are mustered at each lecture period and a careful record of absentees is kept. The student is allowed, at his option, one absence per week. If he is absent more than one period per week he is required to submit a statement of reason for his absence which is either approved or disapproved, as the circumstances warrant. At the end of every four weeks' instruction a sample examination is given to the student. If a student makes a mark of 3.5 or greater in this examination, no demerits are assigned on account of absence even though he has not attended any lectures or submitted any work. If, however, the mark is less than 3.5 and the student has been absent in excess of the single day allowed per week, a certain number of demerits is assigned, depending upon the examination mark and the number of unsatisfactory absences. A record of these demerits is kept which, in the case of any officer, will be an indication of his interest, thoroughness, energy, and the advantage taken of opportunities for professional advancement. The officers have been informed that appropriate remarks concerning the foregoing qualities will be entered in the special fitness reports of January and May, 1921.

8. Officers who have submitted applications to take the May examinations are required to consider themselves in the semicompulsory status unless excused by the commandant upon their request. To date but two officers have been so excused, no others having requested it.

9. In general, the success of the course can be stated to be all that can be expected. The attendance has been practically 100 per cent each day and very few have availed themselves of even the allowed absence of one period per week. Over 60 officers are taking the course, and practically 100 per cent submit navigation solutions daily. Officers who have been detached or expect detachment have requested that lesson sheets be forwarded to them each week, which speaks satisfactorily for the course.

H. H. CHRISTY.

UNITED STATES NAVAL AIR STATION,
NAVAL OPERATING BASE,
Hampton Roads, Va., November 18, 1920.

From: Commanding officer.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for the examination May, 1921.

Reference: (a) Bu. Nav. letter U315-RAB:AB of Nov. 9, 1920.

Inclosure: (A) Copy of schedule of lectures covering period to December 30, 1920, given at the Electrical School, Naval Operating Base, Hampton Roads, Va.

1. A school has been organized by Lieut. Commander F. B. Traynor, United States Navy, attached to the naval training station in charge of the electrical school. He is assisted by the following officers: Lieut. W. S. Hart, United States Navy, submarine station; Lieut. A. J. Selman, ordnance and gunnery;

Lieut. L. L. Hunter, Navy registration and instruction; Lieut. C. W. Styer, steam engineering; Lieut. T. T. Patterson, electricity; Lieut. (J. G.) B. H. Bryan, electricity.

2. Temporary and reserve officers attached to this station are encouraged and given opportunity to attend this school.

3. The object of this school is to prepare temporary and reserve officers for the examinations to be held in May, 1921, and subjects are covered as outlined in Bu. Nav. circular letter N-32 JSM-CS. Lectures are given on Mondays, Wednesdays, and Fridays of each week from 3.30 to 5 p. m. Reading courses are assigned, and the lecture is given on the subject matter read. Navigation classes are held every Monday and not only reading classes are given out but practical problems as well. The subjects of ordnance, seamanship, law, and regulations are given on Wednesday, being divided up as shown by the schedule. Steam engineering and electricity classes are held on Friday and are assigned as indicated by the schedule. In planning the classes the fact that officers may have had previous instruction or experience was not considered in order that all officers concerned might be equally benefited.

S. H. R. DOYLE.

ELECTRICAL SCHOOL.

OCTOBER 13, 1920.

The following tentative schedule of lectures is published for the information of temporary and reserve officers who desire to take the course of instruction:

Navigation: October 18, 25; November 1, 8, 15, 22, 29; December 6, 13, 20.

Ordnance and seamanship: October 13, 27; November 10, 24; December 8, 22.

Law and regulations: October 20; November 3, 17; December 1, 15.

Steam engineering: October 15, 29; November 12, 26; December 10.

Electricity: October 22; November 5, 19; December 3, 17.

The classes will assemble at 3.30 p. m. on board the U. S. S. *Electrician* for lectures on navigation and ordnance, seamanship and regulations, and in the Electrical School Building for instruction in steam engineering and electricity.

For any information regarding the courses inquire of Lieut. Commander F. P. Traynor, telephone, Naval Base No. 268.

NAVAL PROVING GROUND,
Indianhead, Md., November 18, 1920.

From: Inspector of Ordnance in Charge.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for the examinations, May, 1921.

Reference: (a) Bu. Nav. letter N315-RAB:AB of November 9, 1920.

1. Replying to reference (a) above, the bureau is informed that no instructions or school work of any kind is being carried on to prepare officers engaged in aviation duty for the examination to be held in May, 1921.

J. W. GREENSLADE,
Captain, United States Navy.

UNITED STATES NAVAL AIR STATION,
OFFICE OF THE COMMANDING OFFICER,
San Diego, Calif., November 19, 1920.

From: Commanding officer Naval Air Station, San Diego, Calif.

To: Chief of Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for the examinations, May, 1920.

Reference: (a) Bu. Nav. letter November 9, 1920, No. N315-RAB-AB.

1. Forwarded herewith in a report submitted by the officer in charge of instruction of reserve and temporary officers on this station.

2. Attention is invited to the fact that the proposed Panama flight of the air force, Pacific Fleet, will seriously hamper the instruction of officers taking part in that flight, and they will be rewarded by suffering a penalty throughout the rest of their career in the service if they succeed in passing the examination.

This flight, taken at this critical time in the career of the officers concerned, will be a serious handicap to their qualifying in the examinations. This statement is made due to the fact that several officers of the air station are temporarily detailed to the air force, Pacific Fleet, to assist in making the flight to Panama.

J. H. Tomb.

Subject: Instruction of temporary and reserve officers for the examinations, May, 1921.

It was planned to have a monthly examination in each subject, but due to the fleet maneuvers the end of September, no examination was held that month. However, an examination was held the end of October on the two months' work and the results were, generally, very satisfactory. The papers were carefully graded, and the marks posted, and a great deal of interest was shown in the results.

This month will finish the instruction in seamanship and law, military and international, so next month two periods out of each five will be devoted to navigation, two to engineering, and one to ordnance.

Books were ordered through the Naval Institute and nearly all officers have a complete set of the books required. Lessons are assigned so that the instruction period is given to recitations and explanations by the instructor. Lists of questions have been gotten up in each subject, mimeographed, and given to each officer under instruction as a guide for them in their studies outside the regular assigned lessons.

Good progress is being made and with a few exception the officers are working hard and a good percentage of success in the examinations is expected. The sending of the officers of the fleet air away at this time will practically cause the discontinuance of their study and will place them under a great disadvantage with more than an even chance that they will lose out in their examination, this affecting their whole future career.

After the departure of such part of the fleet air as are detailed to go with the fleet the school will be reorganized and the instruction of the officers remaining will be continued.

A. T. CLAY.

[United States naval air station, San Diego, Calif., office of the commanding officer.]

From: Officer in charge of instruction.

To: Commanding officer Naval Air Station, San Diego, commander air force, Pacific Fleet.

Subject: Instruction of temporary and reserve officers for the examinations, May, 1921.

References: (a) Bureau of Navigation letter November 9, 1920, N315-RAB-AB; (b) Bureau of Navigation circular letter, no date, N32-JSM-CS; (c) special joint order commanding officer air station and commander air force, August 31, 1920; (d) Officers' Instruction Bulletin No. 2, October 8, 1920; (e) notice for instructing officers, October 8, 1920; (f) Officers' Instruction Bulletin No. 3, October 30, 1920.

Inclosures (herewith): (A) Copies of references c, d, e, and f.

1. In compliance with reference (a), the following report is submitted:

For the purpose of instruction, the officers of the Pacific Fleet Air Detachment and the air station were combined and a joint order, reference (c), by the commanding officer air station and the commander fleet air force was issued August 31, 1920, organizing the school which commenced Tuesday, September 7, 1920. The officers were divided into five sections, keeping the officers of the various departments together as much as possible, and five regular officers were assigned as instructors in the five subjects, navigation, seamanship, ordnance, steam and electrical engineering, and law and regulations. A two-hour period each day except Saturday and Sunday, from 1.30 to 3.30 p. m., was assigned for instruction, so that each section received a two-hour instruction period in each subject each week. It was found, however, that Wednesday afternoon was too often broken into by athletics, so the instruction period on that day was discontinued and the five classes run consecutively through the month, with four days a week.

With reference (b) as a guide, a course of instruction was laid down to cover as much of the ground as possible prior to January 1, 1921, when a part of the fleet air leaves for Panama with the fleet; the idea being that while the officers would not learn the subjects thoroughly as desired, it would give them a foundation with some idea of what is required, so that they could go ahead by themselves.

SPECIAL JOINT ORDER.

SAN DIEGO, CALIF., *August 31, 1920.*

From: Commanding officer naval air station, San Diego, commander air force-United States Pacific Fleet.

To: Naval air station, San Diego, Calif., air force, United States Pacific Fleet.

Subject: Preparation of officers of the Naval Reserve Force and temporary officers United States Navy for promotion to permanent commissions in the line of Navy.

1. In order to prepare the temporary and reserve officers who are candidates for permanent commissions in the line of the Navy for the examination to be conducted by the Bureau of Navigation a course of instruction in all subjects will be undertaken by the air station and air force, United States Pacific Fleet.

2. The course will commence Tuesday, September 7, 1920, and will continue five months or more. The places of instruction will be announced prior to date of commencement of the course.

3. Instructors in charge of courses are detailed as follows:

Navigation: Lieut. A. I. Flynn, United States Navy air force.

Seamanship: Lieut. Commander G. D. Murray, United States Navy air station.

Ordnance: Lieut. Commander H. B. Grow, United States Navy air force.

Steam engineering and electricity: Lieut. J. J. Bartholdi, United States Navy air force.

Law and regulations: Lieut. Commander C. C. Jersey, United States Navy, staff commandant naval base, San Diego.

By authority of commandant, naval base, San Diego.

Assistant instructors will be detailed later.

4. As there are five general headings for instruction and five days available each week, the officers will be divided into five sections. The distribution of officers in sections will be announced later. As far as practicable a section will contain officers of the same subdivision of station or air force.

5. There will be a daily instruction period excepting Saturdays and Sundays, from 1.30 to 3.30 p. m.; periods are assigned to sections as follows:

Navigation: Monday, first section; Tuesday, second section; Wednesday, third section; Thursday, fourth section; Friday, fifth section.

Ordnance: Monday, third section; Tuesday, fourth section; Wednesday, fifth section; Thursday, first section; Friday, second section.

Seamanship: Monday, second section; Tuesday, third section; Wednesday, fourth section; Thursday, fifth section; Friday, first section.

Steam engineering—electricity: Monday, fourth section; Tuesday, fifth section; Wednesday, first section; Thursday, second section; Friday, third section.

Law and regulations: Monday, fifth section; Tuesday, first section; Wednesday, second section; Thursday, third section; Friday, fourth section.

6. Officers under instruction will be given a mark each month in each subject to be determined by written examinations.

7. Pending receipt of books and periodicals to be designated as textbooks, the instruction period will consist of lectures; after receipt of textbooks definite lessons in each subject will be assigned daily. No officer under instruction will absent himself from an instruction period without permission of the head of the organization to which he belongs.

8. The instruction of temporary and reserve officers is one of the most serious duties now confronting the air station and the air force, and it is hoped that all concerned will cooperate to the end that officers will be given the best facilities possible under the circumstances to prepare for the coming examinations.

J. H. TOMB.

H. C. MUSTIN.

Copies to: Operations (aviation); Bureau of Navigation; Commandant twelfth naval district; commander in chief Pacific; commandant naval base, San Diego; air station files and air force files.

OFFICERS' INSTRUCTION NO. 2.

UNITED STATES NAVAL AIR STATION,
San Diego, Calif., October 8, 1920.

1. Having been placed in charge of the course of instruction for the temporary and reserve officers who are candidates for permanent commissions in the line of the Navy, the following schedule is drawn up. As Wednesday afternoon has been set aside for athletics, the instruction period on that day has been canceled.

Subjects.	October—											
	11	12	14	15	18	19	21	22	25	26	28	29
Engineering.....sections..	1	2	3	4	5	1	2	3	4	5	1	2
Law and regulation.....do....	2	3	4	5	1	2	3	4	5	1	2	3
Navigation.....do.....	3	4	5	1	2	3	4	5	1	2	3	4
Seamanship.....do.....	4	5	1	2	3	4	5	1	2	3	4	5
Ordnance.....do.....	5	1	2	3	4	5	1	2	3	4	5	1

2. Instructors in charge of courses are detailed as follows:

Navigation, Lieut. A. J. Flynn, United States Navy, and Lieut. H. V. Baugh, United States Navy.

Seamanship, Lieut. Commander A. T. Clay, United States Navy.

Ordnance, Lieut. Commander H. B. Grow, United States Navy, and Lieut. Roman J. Miller, United States Navy.

Engineering and electricity, Lieut. J. J. Bartholdi, United States Navy.

Law and regulations, Lieut. Commander C. C. Jersey, United States Navy.

3. The distribution of officers in sections will be as given in Officers' Information Bulletin No. 1.

4. Instruction periods will be from 1.30 to 3.30 p. m., Mondays, Thursdays, Tuesdays, and Fridays.

5. All officers detailed as instructors are desirous of doing all in their power to aid the student officers and will give all assistance possible, but the success or failure in the examination will depend largely on study done outside the section room. This study will be greatly facilitated when books have been procured.

A. T. CLAY.

[United States naval base, San Diego, Calif.]

NOTICE FOR INSTRUCTING OFFICERS.

1. There will be between Monday, October 11, 1920, and the end of the year nine periods for each section in each subject. Of these three will be given to examination and six to instruction.

2. With only six periods for actual instruction, instructors will arrange their courses to cover as much ground as possible, following the outline presented by the department in its circular letter of information to officers eligible for examination. This is necessary, as a large part of the officers of the fleet air force will go south with the fleet the first part of January, 1921.

3. The following days have been assigned for the October examinations, which will be on the subjects covered since the organization of the school: October 22, law and regulations; October 25, seamanship; October 26, engineering; October 28, ordnance; October 29, navigation.

4. Examinations will be held in the mess room of the bachelor officers' quarters during the regular instruction period. Instructing officers will draw up questions on work covered and submit to me, and I will conduct the examination. The papers will then be returned to the instructing officer for marking and returned to me with marks assigned in blue pencil on each question.

5. It is believed that the subjects prescribed for the ensigns' examination can be finished by the end of the year.

6. This notice will be published to the sections at the instruction period on Monday, October 11, 1920.

A. T. CLAY.

UNITED STATES NAVAL AIR STATION,
San Diego, Calif., October 30, 1920.

OFFICERS' INSTRUCTION BULLETIN NO. 3.

1. Recitation periods for November will be on following schedule:

Subject.	November—														
	4	5	8	9	11	12	15	16	18	19	22	23	25	26	30
Seamanship.....sections..	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Ordnance.....do.....	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1
Engineering.....do.....	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2
International law.....do.....	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3
Navigation.....do.....	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4

2. Examinations will be given as follows: December 1, international law; December 2, seamanship; December 5, engineering; December 6, ordnance; December 8, navigation.

A. T. CLAY.

UNITED STATES NAVAL AIR STATION,
Rockaway Beach, Long Island, N. Y., November 19, 1920.

From: Commanding officer.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for examinations, May, 1921.

Reference: Bunay, letter N315-RAB: AB of November 9, 1920.

Inclosure: Outline of instructions and school work.

1. In reply to the above-referenced letter the bureau is advised that as yet it has been impossible to start instructions on account of intensive training of reserves during the summer to September 22, and that since that date the station has been engaged in target practice, which has not as yet been completed.

2. The inclosure is an outline of instructions and school work which will be put into effect as soon as target practice is completed, which will be within the next few days.

A. H. DOUGLAS.

	Morning.	Instructor.	Afternoon.	Instructor.
Monday.....	Navy regulations..	Lieutenant Neuberger.	Navigation.....	Lieut. Commander A. H. Douglas.
Tuesday.....	Seamanship.....	Lieutenant Farrell..	Engineering.....	Lieutenant Sheehan.
Wednesday.....	Ordnance and gunnery.	do.....	Examination or general review.	
Thursday.....	Navigation.....	Lieut. Commander A. H. Douglas.	Military law.....	Lieutenant (Junior Grade) Stevens.
Friday.....	International law..	do.....	Electricity.....	Lieutenant Eddy.
Saturday.....	Examinations or general review.			

UNITED STATES PACIFIC FLEET,
AIR DETACHMENT,
U. S. S. Aroostook, November 22, 1920.

From: Commander air force, United States Pacific Fleet.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for the examinations May, 1921.

References: (a) Bunav. Let. N315-RAB: AB of November 9, 1920; (b) Commanding officer naval air station, San Diego, letter No. 102-88. of November 19, 1920.

1. As the instruction of temporary and reserve officers in this force has taken place in a school organized jointly by the naval air station. San Diego.

and fleet air force, reply to reference (a) is covered by reference (b), letter from commanding officer naval air station, San Diego, to Chief of Bureau of Navigation, forwarding report of Lieut. Commander A. T. Clay, the officer in charge of instruction.

J. H. TOWERS, *Acting.*

UNITED STATES NAVAL AIR STATION,
Pearl Harbor, Hawaii, November 26, 1920.

From: Commanding officer.

To: The Chief of the Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for the examination May 1, 1921.

Reference: (a) Bunav. letter N315-RAB:AB of November 9, 1920; (b) naval air station, P. H. Station Order No. 1, of March 1, 1920; (c) naval air station letter 111-2-WRC-RH of November 11, 1920.

Inclosure: (2) Copies of reference (b) and (c).

1. The bureau is advised that regular instruction for the benefit of temporary and reserve officers who desire to take examination for the Regular Navy, May, 1921, is being carried on at this station in accordance with schedule as laid down in reference (c).

2. Bureau is further informed that instruction of these officers has been carried on, from time to time, as circumstances permitted, for the past eight months. Most of the instruction given prior to promulgation of reference (a) was in lecture form, an example of the schedule of which is inclosed herewith, reference (b).

R. D. KIRKPATRICK.

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., November 9, 1920.

From: Bureau of Navigation.

To: Commander air detachment, Atlantic Fleet; commander air detachment, Pacific Fleet; and all naval air stations.

Subject: Instruction of temporary and reserve officers for the examinations May, 1921.

1. It is requested that the Bureau of Navigation be notified as to what instructions or school work is being carried on in order to prepare the officers (temporary and reserve) for the examinations to be held in May, 1921.

By direction:

R. F. BURG.

UNITED STATES NAVAL AIR STATION,
Pearl Harbor, Hawaii, March 1, 1920.

STATION ORDER NO. 1.

Subject: Officer's instruction course.

1. Commencing March 1, 1920, a course of instruction will be inaugurated for the benefit of all line officers of this detachment. The following schedule of lectures has been prepared with the idea of making instruction periods as interesting and as valuable as possible to the officer concerned:

Monday, March 1: Engines, gasoline, and oil (3.0); Ensign Brady.

Tuesday, March 2: Seamanship (3.8); Lieutenant Cobb.

Wednesday, March 3: Ordnance; Lieutenant Commander Thom.

Thursday, March 4: Military law; Lieutenant Commander Kirkpatrick.

Friday, March 5: Navigation; Lieutenant Cobb.

Monday, March 8: Batteries; Ensign Brady.

Tuesday, March 9: Navy Department organization; Lieutenant Commander Kirkpatrick.

Wednesday, March 10: Staff duties; Lieutenant Commander Logan.

Thursday, March 11: Navigation; Lieutenant Cobb.

Friday, March 12: Naval-supply system; Lieutenant (S. C.) Berkowitz.

- Monday, March 15: Ship organization; Lieutenant Commander Kirkpatrick.
 Tuesday, March 16: Seamanship (boats under oars and sail; handling ships in heavy weather); Lieutenant Kilmer.
 Wednesday, March 17: Communications; Lieutenant Commander Raguet.
 Thursday, March 18: Navigation; Lieutenant Cobb.
 Friday, March 19: International law; Lieutenant Commander Kirkpatrick.
 Monday, March 22: Engines (description of Liberty faults and remedies); Ensign Brady.
 Tuesday, March 23: Station organization; Lieutenant Commander Kirkpatrick.
 Wednesday, March 24: Naval districts; Commander Frederick.
 Thursday, March 25: Navigation; Lieutenant Cobb.
 Friday, March 26: Naval regulations; Lieutenant Cobb.
 Monday, March 29: Seamanship (ground tackle, anchor engines, steering engines, and gear); Lieutenant Kilmer.
 Tuesday, March 30: Military law; Lieutenant Commander Kirkpatrick.
 Wednesday, March 31: Submarines; Commander Gyax.
 2. At 1 p. m. Monday, Tuesday, Thursday, and Friday afternoons and at 11 a. m. on Wednesday all line officers will attend all classes.
 3. In addition to above-specified lecture periods, arrangements have been made with submarine flotilla commander for all officers to make trips to sea at various times in submarines. Officers will be detailed to these trips from time to time.
 4. It is the desire of the commanding officer that officers apply themselves to the instruction which is offered in order that the greatest amount of good may be obtained. Officers will be credited, or otherwise, on fitness reports according to their record of performance in the line of this instruction.

R. D. KIRKPATRICK.

UNITED STATES NAVAL AIR STATION,
Pearl Harbor, Hawaii, November 11, 1920.

From: Commanding officer.

To: All officers.

Subject: School for temporary and reserve officers.

1. The school previously conducted at this station for the benefit of temporary and reserve officers desiring to take the examination for the Regular Navy will be resumed Monday, November 15, 1920.
2. Classes will meet in the wardroom four afternoons a week at 1 p. m. Attendance is not compulsory; but, as every effort will be made by the instructors to make the course as valuable as possible, officers intending to take the examination are advised to take full advantage.
3. The following will be the schedule of lectures: Monday, navigation; Tuesday, engineering; Thursday, navigation; Friday, Ordnance, regulations, international law.
4. Instruction will be under the following officers: Navigation, Lieutenant Cobb, and Lieutenant (JG) Smith; engineering, Lieutenant Mecklenburg; Ordnance, regulations, and international law will be given by the commanding officer.
5. Lectures on electricity will be commenced a little later. The instructor for this course is not yet available.

R. D. KIRKPATRICK.

U. S. S. "SHAWMUT,"
Navy Yard, Philadelphia, Pa., November 26, 1920.

From: Commander air force, United States Atlantic Fleet.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for the examination in May, 1921.

Reference: (a) N-315-RAB: AB of November 9, 1920.

1. Each officer desiring to take the examinations has been given ample opportunity to study professional subjects and instructors have been detailed to assist them; but, owing to the detachment of several regular officers, the schedule of work had been interfered with considerably.
2. The progress has not been satisfactory, due to apparently a greater desire for leave and recreation on the part of the aspirants than for study. No at-

tempt has been made to force the officers to study, as it is believed that their's is the responsibility.

3. Each officer is provided with a notebook in which he keeps a record of the work he has accomplished. This is submitted to the commanding officer every Saturday.

4. The officers of the ship plane division, at Mitchel Field, are under a greater handicap than those attached to the *Shawmut* and *Harding*, because there is but one regular officer attached to the ship plane division, and he has requested one month's leave. Greater opportunity will be afforded officers of the ship plane division during the winter while at Guantanamo.

A. W. JOHNSON.

Captain WILLIAMS (reading): "In this connection, attention is particularly invited to the letter from the naval air station at San Diego, Calif., in which it is stated that the then proposed Panama flight of the air force of the Pacific Fleet would seriously hamper the instruction of officers taking part in that flight. However, in spite of that handicap, by diligent study, 63 per cent of the candidates at that station were successful in the examinations."

Senator WALSH. How many reserves were there at Pearl Harbor that were not in aviation—very few, were there not?

Captain WILLIAMS. I am unable to state that now.

Senator WALSH. What good are those reports, Captain, if they do not give the orders? For instance, these young men inform me that at Pensacola the facts are that one man gave all instruction in all subjects and that the classes were from 12.30 to 1. Whether they were given by one man or by various experts in these subjects makes a good deal of difference.

Captain WILLIAMS. I have no information. I think the San Diego report gives the orders and covers the courses fully. It is quite a long report.

Senator WALSH. I did not ask for the San Diego report. In fact, I want to say frankly that so good was the preparation given the men there that I have not heard a complaint from any of the men that failed at San Diego. It is on the Atlantic shore that the complaints have all come from.

Captain WILLIAMS. I want to be frank with you and say that there is one report here of a situation in which there was no instruction given. I do not know how many aviators they had down there. As far as I see, everyone of the rest of them are here and have been introduced in this record as a part of my statement. [Reading:]

"6. This fact certainly is evidence that officers attached to other stations would also have been successful had they availed themselves of the opportunities presented. As further evidence of the assistance rendered the candidates of the Reserve Flying Corps, the attached letter, marked 'G,' inclosing a copy of the report from the naval air station, Pensacola, Fla., on the instruction and preparation of reserve and temporary officers for the examination, was forwarded to the commanders of all air detachments and to all naval air stations."

(The letter referred to is here printed in full, as follows:)

G.

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., November 26, 1920.

From: Bureau of Navigation.

To: Commanding officer naval air station, Pensacola, Fla.

Subject: Report on instruction and preparation of reserve and temporary officers for the examination for admission to the Regular Navy.

Reference: (a) Letter of commanding officer naval air station, Pensacola, Fla., No. 73038: 73031, TS JSF AL, dated November 18, 1920.

1. The bureau acknowledges receipt of your letter, reference (a).

2. The bureau considers the plan as outlined in reference (a), for the instruction of the reserve force and temporary officers preparatory to taking the examination for transfer to the Regular Navy, to be very good.

3. A copy of reference (a) has been forwarded to commanders of all air detachments and to the commanding officers of all naval air stations.

By direction:

R. A. BURG.

Captain WILLIAMS (reading):

"7. On December 11, 1920, the attached letter marked "H" was promulgated to the service which allowed candidates to elect to take the subject of aero-

nautics in lieu of one of five other subjects. This letter contains an outline of the scope of the examination in aeronautics. It might be stated here that the questions used in the examination were identical with the outline furnished in December but did not cover as broad a field; also that this aeronautics examination was practical and not theoretical in character; and that all aviators are expected to be able to satisfactorily pass the examination without a great amount of preliminary preparation."

(The letter referred to is here printed in full, as follows:)

H.

[Bureau of Navigation circular letter No. 67-20.]

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., December 11, 1920.

To: All ships and stations.

Subject: Examination in aeronautics for reserve and temporary officers applying for transfer to the permanent Navy.

Reference: Circular of information to commissioned officers eligible for transfer to the permanent line of the Navy in accordance with sections 3 and 5 of the act of June 4, 1920.

1. The above reference is hereby amended to include in the subjects upon which reserve and temporary officers will be examined the subject of aeronautics.

2. The subject of aeronautics is assigned the weight of 100, which is equal to the weight assigned each of the subjects of seamanship, ordnance, navigation, and engineering. Those officers who undertake the examination will be required to be examined in but four of these five subjects, any one of the five to be omitted at the option of the candidate.

3. Commanding officers will disseminate this information among all officers eligible for transfer to the permanent line of the Navy in accordance with sections 3 and 5 of the act of June 4, 1920.

4. The general scope of the examination in aeronautics will be as follows:

- (a) Definitions: Parts of planes, airships, etc.
- (b) Aerodynamics; simple laws.
- (c) Questions in stability.
- (d) Questions about gas (hydrogen, helium).
- (e) Problems on expansion of gas in envelope with various altitudes, temperatures, and barometer.
- (f) Rigging and assembling planes and airships (general questions).
- (g) Meteorology; clouds, storms, forecasting, etc.
- (h) Aviation seamanship: Handling planes on board ship, mooring out of planes, and salvaging planes.
- (i) Power plants; requirements, types, fuel, etc.
- (j) Placing aircraft out of commission and storing same.
- (k) Hangar orders and precautions, heavier than air, lighter than air.
- (l) Types of planes and airships (relative use of various types).
- (m) Practical flying questions.
- (n) Air navigation; simple problems in air navigation.
- (p) Aircraft ordnance; bombing, machine gunnery, formation flying for bombing raids, etc.

THOMAS WASHINGTON.

Senator WALSH. Up to that time there was no syllabus issued to these men indicating that they even would be given a chance to be examined in aeronautics; is not that true?

Captain WILLIAMS. Up to this time?

Senator WALSH. Yes.

Captain WILLIAMS. There was no syllabus.

Senator WALSH. So that these men in the Air Service up to as late as December did not know that they even would be given a chance for examination in the one subject in which they had spent five years of their life qualifying. That is true. Why did you not require the reserve officers to take an examination in aeronautics as well as to require these men in aviation to take an examination in navigation and the other kindred subjects?

Captain WILLIAMS. I was present when the decision was made to give the reserve aviators the examination in aeronautics, to give them the choice of taking an examination in aeronautics.

Senator WALSH. Was that because of protests made by these young men that went to the department?

Captain WILLIAMS. I think not.

Senator WALSH. Was there not a great outcry when these men realized that they were not even going to have a chance to be examined in aviation?

Captain WILLIAMS. I am unable to state that there was; I knew of none. As far as this examination was concerned, we have here Lieutenant Leighton, who prepared these questions for the aeronautic examination, and if it is desired can testify as to their quality and length of the examination.

Senator WALSH. I asked the question not about that, but because I understood these men were discouraged and disheartened to find that even in the subject with which they were familiar they were not to be examined, and they did not know of it until December.

The CHAIRMAN. Senator, I will have to leave the committee. You can continue, if you desire, for a short time. I will be away to-morrow, Monday, and Tuesday, and if it be agreeable to all when we adjourn it will be to meet next Wednesday.

Senator WALSH. That will be very agreeable to me, as I am compelled to be away a part of the time.

Captain WILLIAMS (reading):

"8. On the same date, December 11, 1920, a letter (copy of which is attached, marked 'I') was sent out, announcing that the examinations would be held in May, 1921."

(The letter referred to is here printed in full, as follows:)

I.

[Department's circular letter.]

NAVY DEPARTMENT,
WASHINGTON, *December 11, 1920.*

To: All ships and stations.

Subject: Examinations for transfer of temporary and reserve officers to the permanent Navy under the provisions of the act of June 4, 1920.

1. The date of the professional examination for eligible candidates for appointment to commissioned rank in the permanent line of the Navy and in the permanent Construction Corps of the Navy under the provisions of the act of June 4, 1920, is set for May 16, 1921. The date of the professional examination for eligible candidates for appointment to permanent line chief warrant and warrant ranks and to permanent chief carpenters and carpenter is set for May 24, 1921. The physical examination should precede the professional in all cases by several days if practicable.

2. Officers authorized to appoint the necessary supervisory boards, in accordance with the department's circular letter N312 JP6756-2289 of November 6, 1920, will so dispose of their mobile units and will so arrange the personnel under their command that all authorized candidates for the above examinations may begin their examinations on the dates specified.

3. No orders involving mileage and expenses will be issued to candidates who are on active duty, except in cases of urgent necessity. No orders involving mileage and expenses will be issued to candidates on inactive duty.

JOSEPHUS DANIELS,
Secretary of the Navy.

Captain WILLIAMS (reading): "9. It is therefore contended that an overwhelming majority, if not all, of the candidates for this examination had ample opportunity to thoroughly prepare themselves. There may have been some few isolated instances where candidates did not have the opportunity to attend schools of instruction, but they could, however, have obtained textbooks for study. Consequently it is felt that many of these candidates would not, and did not, take advantage of the assistance offered them in spite of the fact that they were well aware of the general scope of the examinations confronting them. The fault rests upon their own shoulders.

"THE GREATER PART OF THE EXAMINATIONS WERE DEVOTED TO SUBJECTS OTHER THAN THAT OF AVIATION.

"1. This is a fact, and the reasons for the adoption of such a policy are outlined in the comments upon the contention that the examinations were unfair and unjust.

"THE INDIVIDUAL ABILITY OF THE OFFICER OR MEMBER WAS NOT GIVEN PROPER CONSIDERATION.

"1. This statement is most certainly an erroneous assumption. The record of each officer carried a weight of 300 out of 1,000 on the examination. The fact that the record of an officer was given proper consideration is attested to by the fact that the examining board was engaged on this work for a period of approximately five months. The examination of records was begun long before the date of the written examination in order that time might be saved. Then this record examination was again considered in connection with the written professional examination of each candidate."

Senator WALSH. Is it not a fact that practically every one of these men were marked 300 on their record?

Captain WILLIAMS. Admiral Bryan will testify to that, but I do not think so.

Senator WALSH. Is it not a fact that they nearly all had a perfect record?

Captain WILLIAMS. No, sir; I do not think so. I am speaking from very incomplete information, but I am quite certain that all of them did not.

Senator WALSH. I had understood, from making inquiries in the department, that so far as putting one man ahead of another, the records were almost all identical and that they all got a pretty generous mark on their records.

Captain WILLIAMS. I do not know. You have spoken of not bringing in individual records, and I want to submit that if we do bring them in, it should be not a matter of public hearing. I do not think the fitness marks should be public property.

Senator WALSH. It was on the fitness that the mark was given.

Lieutenant HAVILAND. I have a favorable fitness report. I have got a reprimand, and my answer is with that report. The fact I received a reprimand did not militate against my later promotion, nor has it militated, so far as I can see, against a good many senior regular officers in the service, even so far as court-martials are concerned.

Senator WALSH. After you got a reprimand you were promoted to a higher rank?

Lieutenant HAVILAND. Yes, sir.

Senator WALSH. So, as it did not count against your promotion, you think it ought not to be counted against you in your examination?

Lieutenant HAVILAND. I mean that if that thing is entered it should not be entered without the knowledge of the officer.

Captain WILLIAMS. I am arguing quite the other way. I am arguing in accordance with the expressed opinion of Senator Walsh, that the individual records of officers had better not be made a part of the public records.

Lieutenant HAVILAND. They should be taken in the presence of the officer, and they should not be entered in the record, because there are many circumstances that the officer might not want to bring forward.

Senator KEYES. These matters, I think, can be taken up in executive session.

Lieutenant HAVILAND. My suggestion was just as to the point of procedure.

Senator WALSH. But the markings of all these men I will want, some time, produced.

Captain WILLIAMS. Admiral Bryan will have them here when he appears. [Reading:]

"MANY OF THE SUCCESSFUL CANDIDATES WERE REDUCED IN RANK.

"1. The statement is correct. In the opinion of the examining board, many candidates of all classes failed to demonstrate their qualification for permanent appointment in the rank for which examined"—

Senator WALSH. Ninety per cent of them either failed or were reduced in rank; only a very few made their rank.

Captain WILLIAMS. I am unable to verify your percentage.

Senator WALSH. Your figures here show that altogether 24 retained their ranks out of 244.

Captain WILLIAMS. These figures are very much better given by the examining board, and if you have no objection I will put those in when the admiral appears.

Senator WALSH. All right.

Captain WILLIAMS (reading):

"In the opinion of the examining board many candidates of all classes failed to demonstrate their qualifications for permanent appointment in the branch

for which examined, but did convince the board that they were sufficiently acquainted with the subjects of the examination to warrant a recommendation for permanent appointment in a lower rank. Those who failed altogether were unable to convince the board of their qualifications for any rank in the permanent Navy. It must be borne in mind that the members of the examining board were under oath to act impartially and with the best interests of the service in mind. It might be advisable to make a statement here in reply to the suggestion which has been made before the committee that many of these gentlemen had been promoted in rank while in the reserve force and then, after examination, had been reduced in rank or found unfit for permanent appointment. During the late war many officers were admitted to the reserve force and to the temporary Navy who had shown aptitude in one specialty. They were sorely needed at the time because the services of officers qualified for any duty were needed elsewhere. They were promoted in rank without examination and solely upon the recommendations of their superior officers, which recommendations covered only their ability in their specialty. In no sense could the fact that they were so promoted be used as the standard for promotion or appointment in the regular service, as the required qualifications for the latter cover a wide field.

"10. A statement is appended showing the result of the examination of officers of the Naval Reserve Flying Corps.

"11. With reference to that portion of the resolution which relates to the loss of the Navy of the services of approximately 200 trained and experienced aviators, including the most experienced and skilled pilots in the country, the answer must again be made that the Navy is not desirous of securing officers who are merely pilots of airplanes, but does need the services of individuals who can demonstrate their abilities in other branches of the naval profession.

Senator WALSH. Your statement would have a great deal of weight with these men had it been made soon after November 11, 1918, that they had no use for experts in aviation piloting.

Is the Marine Corps a part of the Navy?

Captain WILLIAMS. The Marine Corps is a part of the Navy.

Senator WALSH. Who prepared the examination for promotion in the Marine Corps?

Captain WILLIAMS. I do not know.

Senator WALSH. Did the same law apply to taking reserve officers, if they were called reserve officers, from the Marine Corps into the regular line, as in the taking of reserve officers from the naval service into the regular line?

Mr. SCHUYLER. We would have to look that up.

Senator WALSH. You do not know that?

Mr. SCHUYLER. We do not handle the Marine Corps at all.

Senator WALSH. Who prepares the examination for the Marine Corps?

Captain WILLIAMS. I do not know that.

Senator WALSH. Is that law different from your law?

Captain WILLIAMS. I think it is.

Senator KEYES. I think it is separate.

Senator WALSH. In any event, whoever prepared the examination for that branch of reserve officers in the Marine Corps, who were doing aviation service, prepared an entirely different examination than the Navy prepared.

Captain WILLIAMS. You have more knowledge on that subject than I have, Senator, but I believe you are right.

Senator WALSH. Do officers in the flying service of the Marine Corps have to go to sea?

Captain WILLIAMS. Captain, do you know anything about that?

Captain MUSTIN. Nearly all the Marine Corps aviation has been on shore duty alone.

Senator WALSH. Is there any sea duty at all involved in aviation in the Marine Corps?

Captain MUSTIN. So far, I think the only sea duty that marine aviators have had was being transported from one place to another by ship.

Senator WALSH. As a matter of fact, do you know about the examination in the Marine Corps?

Captain WILLIAMS. No, sir; I do not know anything about it.

Senator WALSH. You do not know the nature or the character of it?

Captain WILLIAMS. No; I do not know how many passed.

Lieutenant HAVILAND. Does not the law governing the pay of the Marine Corps specifically state that the marines shall have duty at sea? They were once removed by President Roosevelt, but their pay stopped and he had to send them to sea against his personal wish.

Captain WILLIAMS. I am unable to give you any detailed statement. I can not tell you what I do not know. May I say that in the last few years the Marine Corps has been very largely engaged in a peculiar form of military operations called the advance base, work in which they are practically self-contained, and I presume that aviation work is connected with that.

Commander ELLYSON. My information of the Marine Corps is that they are detailed for a certain length of time to the flying squad. They have to go back to the work of the Marine Corps at the end of seven years, and it is after their change from the flying corps to the Marine Corps that they are required to do their sea duty. But their sea duty is not comparable to the line officer's sea duty.

Senator KEYES. They have nothing whatever to do with the handling of the ship.

We will adjourn until Wednesday morning at 10 o'clock.

(Whereupon, at 12.15 o'clock p. m., the subcommittee adjourned until Wednesday, April 19, 1922, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

WEDNESDAY, APRIL 19, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The subcommittee met, pursuant to adjournment, at 10 o'clock a. m., in the committee room, Capitol, Senator L. Heisler Ball presiding.

Present: Senators Ball (chairman), Keyes, and Gerry.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order. Can you give us, Senator Walsh, any idea as to how much longer we will be required on this hearing?

Senator WALSH. I think in three or four hours I can close my case; in perhaps less than that, but not more than.

The CHAIRMAN. Then one hearing after to-day probably will complete it?

Senator WALSH. Yes; I think so.

TESTIMONY OF CAPT. PHILIP WILLIAMS—Resumed.

Lieutenant BRADFORD. I would like to ask Captain Williams if when the Navy Department issues an order is it customary to say it is "Directed that such and such a thing shall be carried out"? Is not that the customary way of issuing an order?

Captain WILLIAMS. What do you mean by "customary"? It is done; frequently done.

Lieutenant BRADFORD. That is the usual procedure for issuing a written order.

Captain WILLIAMS. I can not say it is a universal procedure, but it is customary; yes.

Lieutenant BRADFORD. When the department refers to the fact that such and such a thing has been directed, it is generally understood it has been carried out unless something later on has been entered to show it has not?

Captain WILLIAMS. I do not think I get the point.

Lieutenant BRADFORD. Is it not customary when the department refers to the fact that a direction was given to carry such a thing out, that was carried out unless there is some later statement to show it had not been carried out?

Captain WILLIAMS. Yes; if I understand your question.

Lieutenant BRADFORD. In this letter from the Navy Department to the chairman of the Committee on Naval Affairs, United States Senate, on page 3, the first paragraph on that page, it is stated:

"In July, 1919, nearly one year before the passage of the act authorizing the transfer to the line of the Navy of temporary and reserve officers, and 22 months before the examination for transfer was held, the Director of Naval Aviation issued a circular letter to the commanding officers of all naval air stations and naval aviation detachments inviting attention to the opportunities that existed at that time for the instruction of aviation officers in regular line duties, in order that the latter might be better prepared for examination for transfer when the necessary legislation should be enacted."

"In accordance with this circular letter, courses of instruction for aviation officers were established, and officers were given every opportunity and assistance to qualify for the general duties of the line."

Would you infer from that statement that 22 months before the examinations were held schools of instruction were started?

Captain WILLIAMS. No.

Senator WALSH. In other words, the young man suggests that it is a misrepresentation of the department and of the bureau to say that commanding officers were directed to establish schools and courses of instruction, and let the inference be drawn that they were directed, when as a matter of fact nobody now claims they were established until October, previous to the month of May when these examinations were held. In other words, on reading that letter, Captain, the only inference you can draw, if there had not been any defense put in here such as has been put in, is that 22 months before the department directed these schools to be established, because it is to be assumed that the orders were obeyed.

Captain WILLIAMS. Of course; how else could it be done?

Senator WALSH. What has been done to punish these men that did not carry out your directions?

Captain WILLIAMS. It is yet to be proved they did not individually carry out our suggestions—"Akron, Ohio, August 18"—

Senator WALSH. Just a minute, unless you are going to answer my question. Do you say it yet remains to be proved that schools were not established under that order?

Captain WILLIAMS. It remains to be proved that no schools were established under that order; it remains to be proved who was responsible; it remains to be proved who omitted to carry out this duty. The whole subject remains to be proved.

The CHAIRMAN. Senator, just read a part of that letter again where it authorizes the establishment of schools, and give me the date of the letter.

Senator WALSH. This is the letter to your committee after my resolution went in and was presented, setting forth a statement by the bureau.

The CHAIRMAN. That is not the one with the order.

Senator WALSH. No; it is the letter which was sent to you stating they had done this.

The CHAIRMAN. Let us get clear what the orders were. First, the boys were merely notified, as I understand the order, that there would be such examinations, about a year previous to its being held.

Senator WALSH. Let me read this again. This is the letter addressed to Senator Ball from the Secretary of the Navy, written and prepared by the bureau, of course.

The CHAIRMAN. I understand that, but I want to get the facts in my mind clearly.

Senator WALSH. He says, among other reasons, explaining why so many of these boys failed, and justifying the examination they gave:

"In July, 1919, nearly one year before the passage of the act authorizing the transfer to the line of the Navy of temporary and reserve officers, and 22 months before the examination for transfer was held, the Director of Naval Aviation issued a circular letter to the commanding officers of all naval air stations and naval aviation detachments, inviting attention to the opportunities that existed at that time for the instruction of aviation officers in regular line duties, in order that the latter might be better prepared for examination for transfer when the necessary legislation should be enacted.

"In accordance with this circular letter, courses of instruction for aviation officers were established, and officers were given every opportunity and assistance to qualify for the general duties of the line."

These young men say that it is a gross mis-statement of the facts.

Captain WILLIAMS. The statement you question is that courses of instruction were established?

Senator WALSH. Yes; in accordance with this circular letter of July, 1919. Here is your statement, prepared by your bureau, signed by the Secretary of the Navy, sent to a Senate committee, in answer to the claim that these examinations were not fair, and you state here, in accordance with this circular letter of July, 1919, that courses of instruction for aviation officers were established.

Captain WILLIAMS. They were.

Senator WALSH. When and where?

Captain WILLIAMS. If you will let me read this to you.

Senator WALSH. Very well.

Captain WILLIAMS (reading):

NAVAL AIR STATION,
Akron, Ohio, August 12, 1919.

From: Commanding officer.

To: Director of Naval Operations, Navy Department, Washington, D. C.

Subject: Instruction of officers.

Reference: (a) Nav-Air No. 82-171, dated July 21, 1919.

1. In compliance with the above reference, a course of instruction has been laid down for the officers at this station in the following subjects:

(a) Navigation, tactics and strategy, Navy regulations and instructions, meteorology and the theory of free ballooning.

2. Copies of (day's work) and other problems in navigation have been obtained from the head of the department of navigation at Annapolis, and these problems will be given to the officers in conjunction with textbook work in Bowditch. Such parts of Navy regulations and naval instructions as are given midshipmen at the Naval Academy will be studied by the officers at this station. A request has been sent to the War College at Newport for a correspondence course in tactics and strategy and the subject will be studied from this course. Meteorology and the theory of free ballooning is required in the free balloon course and the study of these subjects will be continued. It is believed better to confine the course of instructions to a few subjects until the officers have become familiar at least to an extent with these subjects rather than attempting a great many.

H. W. HOYT.

The CHAIRMAN. By whom was that signed?

Captain WILLIAMS. H. W. Hoyt.

Senator WALSH. And the date?

Captain WILLIAMS. August 12, 1919.

Senator WALSH. Will you state if you have anything there to show that any other schools were established?

Captain WILLIAMS. I have not here at this time.

Senator WALSH. Do you know of any others?

Captain WILLIAMS. I do not, at the moment.

Senator WALSH. Will you admit that so far as you knew, and your bureau knows, there were no others?

Captain WILLIAMS. I would prefer to look it up.

Senator WALSH. We looked it up the other day.

Senator KEYES. Was there not one established at San Diego?

Senator WALSH. No; the schools there were not established until October before, but Captain Mustin did state that he had assigned them to duties aboard ship which would give them some knowledge, but he agreed to the fact that no schools were established.

Captain WILLIAMS. I would prefer that that information be given by officers who are more intimately acquainted with the facts.

The CHAIRMAN. Senator Walsh, do you construe a statement of that kind, dated at that date, to mean that the schools were already established?

Senator WALSH. All I can do is to read English. I will let you read it. "In accordance with this circular letter"—

The CHAIRMAN. Yes.

Senator WALSH. "Courses of instruction for aviation officers were established" in accordance with that letter.

The CHAIRMAN. Yes.

Senator WALSH. "And officers were given every opportunity and assistance to qualify for the general duties of the line."

The CHAIRMAN. The point of issue is whether that letter, written at a recent date, and the order issued on a previous date, stating that schools were established, is really a misrepresentation. We all want to bring out the facts in the matter.

Senator WALSH. In the next paragraph it speaks of what happened in August, 1920. The Bureau of Navigation issued a circular letter containing the scope of the examination. This says the scope was given to them, and that clearly leads to the inference—

The CHAIRMAN. The letter giving the scope of the examination would imply that the real schools were not started until the scope of the examination was made public. The first letter was a notice to the boys that they were to be examined and that schools were to be established. We have had ample proof that there were such schools established.

Captain WILLIAM. I have another report that schools were established.

Senator WALSH. I would agree with you if it were not for the statement which is made in this letter that in accordance with this circular letter a course of instruction for aviation officers was established and the officers were given every opportunity and assistance to qualify for the general duties of the line. I say there is no living human being, that has not a prejudiced mind, who on reading that paragraph and realizing that an order or a direction means something in the Navy, could come to any other conclusion but that after the letter of July, 1919, these schools were established.

I say that if you had not heard the testimony of these young men who have appeared here you would not have known from reading this letter but that schools were established in July, 1919. But because they have come here and raised questions about it, and submitted their proof, it now appears that no schools were established practically until October, 1920.

The CHAIRMAN. From the statement of the second order I would not construe they were established previous to the second order giving the scope of the examination.

Senator WALSH. I am very glad you put that construction on it, because that is the fact. I am arguing, and these young men argue, that the inference from that is that they had 22 months, instead of eight or nine months, after the establishment of the schools.

Captain WILLIAMS. I believe that the exact date of the establishment of each one of the schools could be accurately ascertained. I have a letter here dated the 1st of March, 1920.

The CHAIRMAN. Just one moment. I am going to request that the department file with the stenographer a statement giving the exact date of the starting of every school, the place of all those schools, and a statement whether they gave an opportunity to every aviator desiring to take that examination to attend those schools.

Lieutenant HAVILAND. May that include also a statement of the detachments in which no instruction was started? That might be omitted in that statement.

The CHAIRMAN. I tried to cover that point by asking for information as to whether or not schools were established, so that all aviators in the Navy would have an opportunity to attend school. If there were any who were assigned to duties that kept them away from any connection with the school, then we want that information in the report. I take it from certain evidence submitted here that there were at least some that were assigned to land duties, as I understand, where there were no aviation schools, and were later transferred to other duties, taking them into active duty, and clear up to within a week or 10 days of the examination. If that be the case, we want that statement concisely put in our record, so that we may have the full information.

Lieutenant HAVILAND. Yes; and that would include all detachments that were in operation during that period where they did have schools. The omission there might comply with the request stating information was wanted of all schools that were established and the dates established. Some detachments did not have any instruction started during any of this period.

The CHAIRMAN. To be clear, I want to be able to draw this distinction—whether the lack of that instruction was a personal equation on the part of the individual himself or whether it was a matter of orders from the department, ordering him to certain duties which took him away from the place where the schools were and he did not have an opportunity, no matter how anxious he might have been himself, to receive that instruction. If the matter of failing to take instruction was due to the individual himself or to his refusing to attend the schools and prepare for the examination, it is a matter that is entirely up to him. If through orders of the department he was occupied with other duties, Government duties, then the matter is not up to him, but is a departmental matter, in my judgment, and he should have had opportunity.

Senator WALSH. Mr. Chairman, I am very glad you have asked for that. But I want to say that it is significant that we have been here for days and days, and neither you nor I nor anybody else have got any accurate information about these examinations.

The CHAIRMAN. I am asking for it now.

Senator WALSH. But it is significant, if there is a desire here to be fair and open and candid, that we have not been able to procure the information before this.

(Information requested with reference to the establishment of schools:)

UNITED STATES NAVY YARD,
COMMANDANT'S OFFICE,
Washington, D. C., May 5, 1922.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the Regular Navy under act of June 4, 1920.

Reference: (a) Bu. Nav. Let. N322-FJS-EW 15372-258 of May 1, 1922.

1. The information requested in reference (a) is furnished as follows:

(a) What schools were established at the navy yard and station, Washington, D. C.?

There were no schools established at the Washington Navy Yard proper, as no instruction was requested by any of the candidates.

At the naval air station, Anacostia, D. C., the following schedule of instruction was put into effect:

Monday, engineering; Tuesday, seamanship; Wednesday, ordnance and gunnery; Thursday, electricity; Friday, international law, military law, naval regulations, and routine; when practicable, navigation.

(b) On what dates were they established?

This schedule of instruction was established at the Anacostia Naval Air Station on November 23, 1920.

(c) How long did they continue?

Approximately three months. However, the subject of navigation was not taken up regularly, due to the fact that an instructor could not be obtained to give regular instructions.

(d) How many reserve officers of class 5 attended these classes?

Seven.

(e) How many reserve officers of class 5 attached to the station did not attend?

One.

(f) How many were on such duty that they could not attend?

None.

2. In amplification of remarks under (a) the bureau is advised that the temporary and reserve officers at this yard who were candidates for examination, together with candidates on duty at the Navy Department, formed classes amongst themselves for the purposes of preparing themselves for the examination.

J. H. DATTON.

STAFF HEADQUARTERS,
THIRTEENTH NAVAL DISTRICT,
Seattle, Wash., May 19, 1922.

From: Commandant thirteenth naval district.

To: Chief of the Bureau of Navigation.

Subject: Schools of instruction for temporary and reserve officers in preparation for examination for appointment to the Regular Navy under act June 4, 1920.

Reference: (a) BuNav. letter N322-FJS-EW, 15372-258 of May 2, 1922.

1. In accordance with above reference the following information requested is furnished herewith relative to schools of instruction conducted in 1920 and 1921 for the benefit of candidates for appointment to permanent Navy under act of June 4, 1920:

(a) Class were held at the navy yard, Puget Sound, Wash., in the following subjects: Navigation, two periods per week, one and one-half hours each; international and military law, one period every other week of one and one-half hours each; seamanship, one period every week of one and one-half hours each; ordnance and gunnery, one period each week of one and one-half hours. During two months, about February and March, only one period each week in navigation and one period each week in law and seamanship.

(b) These classes were established about August 15, 1920.

(c) The above classes continued up to the time of examination.

(d) There were no reservists in class 5 for attended these schools.

(e) There were no reservists in class 5 attached to the navy yard or the thirteenth naval district.

2. The above classes were conducted by officers then attached to the navy yard, Puget Sound.

H. C. KUENZLI.

MAY 17, 1922.

From: Commandant twelfth naval district.

To: Chief of the Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the regular Navy under act of June 4, 1920.

Reference: (a) Bureau Navigation letter N 322-FJS-EW 15372-258 of May 2, 1922.

1. In compliance with reference (a) I have to report that schools for the instruction of candidates for appointment to the permanent Navy were established in the twelfth naval district at the navy yard, Mare Island, and at the naval training station, San Francisco.

2. The inquiries of reference (a) are answered below:

NAVY YARD, MARE ISLAND.

(a) A school for the instruction of temporary and reserve officers was started at the navy yard, Mare Island, on September 21, 1920, under the command first of a lieutenant commander and later of a commander. All officers were excused from duty on Tuesdays and Fridays from 3 o'clock and the school lasted until 4.45 p. m. In addition, during the noon hour instruction was given by a lieutenant commander for officers who felt backward in navigation.

(b) School established September 21, 1920.

(c) School continued until April 16, 1921.

(d) No reserves of class 5 attended these schools.

(e) There were no reserves of class 5 attached to this station.

(f) None on duty here.

NAVAL TRAINING STATION, SAN FRANCISCO.

(a) A school for the instruction of temporary and reserve officers was established at the naval training station about February 15, 1921, and a board of two lieutenant commanders and one lieutenant was appointed to take up the organization of a school and give the necessary instructions to candidates for examination.

(b) The school was established on February 15, 1921.

(c) This school continued only about one month, and was not continued longer, due to the very small number of temporary and reserve officers attached to this station at that time.

(d) There were no reserve officers of class 5 on this station at that time, consequently none attended the school.

(e) See (d) above.

(f) See (d) above.

A. S. HALSTEAD.

OFFICE OF THE COMMANDANT.

NINTH NAVAL DISTRICT.

Great Lakes, Ill., May 15, 1922.

To: Bureau of Navigation, Navy Department, Washington, D. C.

Subject: Instruction of temporary and reserve officers in preparation of examination for permanent appointment in the Regular Navy under act of June 4, 1920.

Reference: BuNav. letter N322-FJS-EW-15372-258 of May 2, 1922.

1. In answer to the above letter of reference the following information is submitted:

(a) Schools were established at the naval training station, Great Lakes, Ill., for the instruction of temporary and reserve officers in navigation, seamanship, gunnery, strategy and tactics, and military and international law.

(b) The above schools were started on Tuesday, September 21, 1920.

(c) Instruction in the above schools was continued until Saturday, April 30, 1921, with three classes per week.

(d) In addition to a number of temporary and reserve officers, two officers of the Naval Reserve Force, class 5, rank of lieutenant and lieutenant (junior grade) attended these classes.

(c) Two officers of the Naval Reserve Force, class 5, did not attend these schools, by reason of the fact that they did not intend to remain in the service and did not desire to take examination for permanent appointment in the Regular Navy. These officers were of the rank of lieutenant (junior grade) and ensign.

(f) None.

2. Both of the officers mentioned in subparagraph (d) took the examination for permanent appointment in the Regular Navy, were found qualified, and received commissions.

3. It would appear from investigation that there were not any schools established in the ninth naval district for the instruction of temporary and reserve officers in preparation of examination for permanent appointment, other than the one established at the United States naval training station, Great Lakes, Ill.

J. H. INGRAM,
Assistant District Commandant.

UNITED STATES NAVAL AIR STATION,
Pensacola, Fla., April 29, 1922.

From: Commandant.

To: Bureau of Navigation.

Subject: Data for information of Senate investigating committee.

Reference: (a) Bureau of Navigation letter No. N322-FJS-EW of April 21, 1922. (b) Commandant naval air station, Pensacola, letter RO-OMW-73038 of April 28, 1922.

Inclosure: (1) Outline of reserve and temporary school.

1. In connection with reference (a) and in addition to commandant's letter (reference (b)), inclosure (1) is submitted as additional data for information of the bureau.

2. The general outline of this inclosure was followed. A few minor changes were made after the course had been started.

H. H. CHRISTY.

OUTLINE OF RESERVE AND TEMPORARY SCHOOL.

Get all reserve and temporaries (eligible) together and give talk along the following lines.

Date of examination, some time in May.

A list of textbooks that are thought to cover the subjects has been prepared. These will have to be purchased by officers, except those that may already have them. In regard to this, officers are informed that the books will not only be of value in preparing for this particular examination, but they will be used (for those that enter the regular Navy) for every examination for promotion in the future. For the convenience of all concerned, the books that each officer desires will be determined in the near future, an I. O. U. (for value of book) rendered, and the books ordered in bulk by express. Prices of each book determined, with transportation charges reckoned in. When received, books will be delivered upon making good the I. O. U. If any desire to order books individually, they may do so; the cost will probably be something greater in this case.

It is contemplated adopting the following procedure: Applications to take the examination will be required at once. Officers submitting applications will be assisted in work of preparation; officers not submitting applications will not.

The time between now and May has been allotted as follows: Course to start November 1; every fourth week thereafter up to April 12 (Saturday) will be for review and examinations; the four weeks, April 4 to 30, reserved for general review all subjects, coaching of individuals who need it, and any special assistance that can be rendered; examinations may or may not be held as determined later.

In regard to how much of the course, if any, should be compulsory or the study left entirely to each individual, the following points have been considered:

Any officer submitting application thereby indicates that he wishes to stand high enough in competitive examination to insure his being accepted. Never-

theless there may be some good material of the type that the Navy needs who if left entirely to themselves might expend a good deal of misdirected energy, or might have a mistaken idea that they could cram at the last minute and get by, or might become discouraged at the long grind and the amount of work required. Not all candidates will have the same amount of experience or knowledge, some requiring much more work than others. There may even be some who are nearly ready at this time to take the examination. They are doubtless many who are pretty well up in one or more subjects, while entirely lacking in others.

As the course proceeds some, on account of superior ability or having more time at their disposal or having a previous good foundation, may desire to go ahead by themselves, thinking they can do better by setting their own pace. There is a type of student—perhaps in a majority—who can not do himself justice unless a definite schedule is laid down which he is required to follow, with a penalty attached if he fails to keep up to it. Many of this same type will find themselves not getting down to work when they should be unless certain definite study hours are prescribed and the student made to observe them. At the same time it is realized that such a schedule is irksome, that an arbitrary schedule of study hours would provide too much time in some cases and not enough in others, and that last but not least of two candidates obtaining about equal marks on the competitive examination, one of whom attained the result by being forced to follow a definite schedule and the other indicating the stamina, the initiative energy, and sticktoitiveness necessary for having attained high standing through his own efforts, the latter would make the better naval officer; and fitness reports, which also are considered in figuring the standing of candidates, are of little assistance in determining those qualities.

After carefully considering the proposition it has been decided to adopt a compromise program—that is, one neither entirely compulsory nor entirely left to the discretion of the individual, as follows:

A daily schedule of ground to be covered will be drawn up. This schedule will be based on a five-day week and on the number of hours for study each day considered necessary for one to whom the subject is new, the number of hours of study each day, and the length of daily lessons will be determined by a careful survey of the entire ground to be covered and the time available in order that the course, except for review, can be finished by April 2. Each week's work will be published on the previous Saturday.

An office will be established and certain office hours prescribed when questions will be answered concerning points not understood and any assistance rendered that may be requested. Office hours which are subject to change will be:

Monday and Tuesday, 8.45 to 9.45; Thursday and Friday, 1.15 to 2.15; Wednesday and Saturday, 8.45 to 9.45.

Daily lectures will be given of one-half hour's duration divided into three parts, as follows:

- (a) Lessons of day before gone over briefly to emphasize important points.
- (b) Specially obscure or difficult points of the day's lessons explained.
- (c) (If time.) General questions answered. Time of these lectures, Monday, Tuesday, Wednesday, Thursday, and Friday, 12.30 to 1 and 4.30 to 5, except that there will be no 4.30 to 5 period on Wednesday.

Examinations will be held during "review and examination week," probably on Wednesday and Saturday afternoons, to be of one hour for each subject and drawn up not so as to cover the subjects necessarily but to indicate the kind of questions that will be asked on the competitive examinations.

All officers submitting applications will be required to take all examinations, unless a request not to do so is approved by the commanding officer. Attendance at lectures will be required (unless excused by commanding officer as in the case of examinations) under the following rules:

Missing one lecture in any week, no action.

Missing two or more lectures in any week, candidate will be required to submit statement explaining all absences during that week. No further action until results of new examinations are known.

Candidates making 3.5 or over in all examinations, record will be considered clear.

Table showing assignment of demerits.

	Number of absences during 4 weeks not satisfactorily explained.								
	1	2	3	4	5	6-7	8-10	10-12	Over 12.
Candidates making lowest mark on any examination between—									
3.5 and 4.....	0	0	0	0	0	0	0	0	0
3.3 and 3.49.....	0	0	0	0	1	2	3	4	5
3 and 3.29.....	0	0	1	2	3	4	5	6	7
2.5 and 2.99.....	0	2	4	6	7	8	9	10	11
1.5 and 2.49.....	4	6	7	8	9	10	11	12	13
0 and 1.49.....	8	9	10	11	12	13	14	15	16

Explanation: Record of demerits will be kept for each candidate. On the special fitness reports to be submitted January 30 and April 30 appropriate remarks will be entered concerning the following:

Interest exhibited, thoroughness, energy, basing these remarks on number of demerits assigned as follows: None, perfect; 25 for the period, unsatisfactory; not recommended as a regular officer.

Any officer averaging less than 2.5 in any subject or less than 3 (employing the weights prescribed) in all subjects after the second set of examinations will be advised to request a withdrawal of his application.

A detail of regular officers undergoing aviation training will be made out daily, except Saturdays, Sundays, and holidays, to relieve duty officers during lecture periods, reporting 15 minutes before time for lecture to commence; duty officer to report back not more than 15 minutes after lecture is finished.

UNITED STATES NAVAL AIR STATION,
Pensacola, Fla., April 28, 1922.

From: Commandant.

To: Bureau of Navigation.

Subject: Data for information of Senate investigating committee.

Reference: Bureau of Navigation letter No. N322-FJS-EW of April 21, 1922.

Inclosure: (1) Commandant's letter 73038:73031, November 18, 1920.

1. In reply to the above reference the records of this station show that:

(a) A school known as the reserve and temporary school was started on October 15, 1920, for the purpose of instructing those officers who were eligible and who desired to take the examination in May, 1921, for transfer to permanent appointment in the Navy.

(b) This school was continued from October 15 to the day of the examination in May, 1921.

(c) The hours allotted for instruction were 12.30 to 1 p. m. and 4.30 to 5 p. m.

(d) Lieut. Commander Paul Cassard, United States Navy, was in charge of the school and was the only instructor with the exception of officers who had specialized in certain subjects and were called upon to deliver lectures.

(e) The officer in charge of this school was relieved of all other duties in order that he might devote his entire time to instruction of reserve and temporary officers and he was always available in his office for purposes of individual instruction.

(f) When this school was started a vote was taken among the officers eligible for the examination and they decided that the school be compulsory. In other words, an officer must attend the school once each day, and if absent he must explain in writing the reason for such absence. There were between 50 and 60 officers attached to the school and practically all of them bought all the standard naval textbooks in which the daily lessons were assigned. The assignment of lessons called for study each night, which most of the officers carried out.

Wednesday afternoons and week ends were also utilized for study periods. This instruction extended over a period of seven months, and there is no doubt that any officer with normal intelligence who applied himself could have learned sufficient to pass the examination. Practically all the questions asked in the

examinations had been given out in the classroom during the period of instruction. In this connection it may be interesting to note that the identical navigation day's work given on the examination was also given in the classroom previous to the examinations and worked by all the students who elected to take this subject. Attention is called to the marks made in the May examinations by Lieut. T. C. Lonnquest, United States Navy, who received his instruction on this station and was an enthusiastic, energetic, and ever-present member of the school.

H. H. CHRISTY.

NOVEMBER 18, 1920.

From: Commandant.

To: Bureau of Navigation.

Subject: Report on instruction and preparation of reserve and temporary officers for the examination for admission to the Regular Navy.

Reference: (a) Letter of BuNav N315-RAB:AB, dated November 9, 1920.

1. Upon receipt of the instructions and outline of examination from the bureau the officers affected thereby were informed of the necessary details and the method of instruction discussed with them. As a result a semicompulsory system of instruction was adopted by a vote of the officers concerned.

2. A course of instruction has been laid out to cover a period of 24 weeks. Twenty weeks of this are devoted to navigation and other subjects are carried simultaneously with navigation (except during the first four weeks). In this way every subject is covered as thoroughly as time permits and four weeks are allotted to a general review at the end of the course. Inasmuch as possible the outline has been prepared and the instruction in all subjects approached from the viewpoint of one to whom all subjects are completely new.

3. As the officers preparing for the examination are all engaged more or less constantly in regular station work, the course has been arranged for at least two hours each night, home study. At the beginning of each week a lesson sheet is given every student. These lesson sheets have the pages of texts to be studied for each night of the week and contain under each day's assignment "typical" questions on the subject matter assigned for study, as well as numerous problems in navigation.

4. In addition to the night study, brief lecture periods of one-half hour each are held daily at 12.30 and 4.30 p. m. Owing to the desire not to have these lecture periods conflict with regular station work they are, it will be noted, held during the lunch hour and after regular working hours. Students can attend either lecture at their convenience. These periods are devoted to, first, explanations of possible obscure points in the daily lesson; second, criticism of previous work; and third (if time permits), the answering of questions.

5. An officer of the Regular Navy has been detailed exclusively to this instruction work. Students who are backward or do not have their difficulties sufficiently cleared up during the lecture period bring these troubles to the instructor for individual help.

6. Navigation problems which are worked at home are turned in to the instructor for correction, comment, and are then returned.

7. The semicompulsory system operates as follows: Officers are mustered at each lecture period and a careful record of absentees is kept. The student is allowed, at his option, one absence per week. If he is absent more than one period per week he is required to submit a statement of reason for his absence, which is either approved or disapproved, as the circumstances warrant. At the end of every four weeks instruction, a sample examination is given to the student. If a student makes a mark of 3.50 or greater in this examination no demerits are assigned on account of absence, even though he has not attended any lectures or submitted any work. If, however, the mark is less than a 3.50 and the student has been absent in excess of the single day allowed per week, a certain number of demerits is assigned, depending upon the examination mark and the number of unsatisfactory absences. A record of these demerits is kept, which in the case of any officer will be an indication of his interest, thoroughness, energy, and the advantage taken of opportunities for professional advancement. The officers have been informed that appropriate remarks concerning the foregoing qualities will be entered in the special fitness reports of January and May, 1921.

8. Officers who have submitted applications to take the May examinations are required to consider themselves in the semicompulsory status unless excused

by the commandant upon their request. To date but two officers have been so excused, no others having requested it.

9. In general, the success of the course can be stated to be all that can be expected. The attendance has been practically 100 per cent each day, and very few have availed themselves of even the allowed absence of one period per week. Over 60 officers are taking the course and practically 100 per cent submit navigation solutions daily. Officers who have been detached or expect detachment have requested that lesson sheets be forwarded to them each week, which speaks satisfactorily for the course.

H. H. CHRISTY.

EIGHTH NAVAL DISTRICT,
OFFICE OF THE COMMANDANT,
NEW ORLEANS, LA.

From: Commandant eighth naval district.

To: Bureau of Navigation, Navy Department, Washington, D. C.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the Regular Navy under act of June 4, 1920.

Reference: (a) BuNav letter N322-FJS-EW. 15372-258, May, 1, 1922.

1. The bureau is informed that no schools for the benefit of candidates for appointment to the permanent Navy under the act of June 4, 1920, were conducted at stations within the limits of the eighth naval district during 1920. (This does not include schools that may have been conducted at the naval air station, Pensacola, Fla.)

2. There were no reserve officers of class 5 attached to any station in the eighth naval district, except the naval air station, Pensacola, Fla., during the period June 1 to December 31, 1920.

T. P. MAGRUDER.

SEVENTH NAVAL DISTRICT,
OFFICE OF THE COMMANDANT,
Key West, Fla., May 8, 1922.

From: Commandant seventh naval district.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the Regular Navy under act of June 4, 1920.

Reference: BuNav. Letter No. 15372-258 of May 1, 1922.

1. Replying to above reference, the bureau is informed there were no schools of instruction conducted in the seventh naval district.

W. S. CROSLY.

HEADQUARTERS SIXTH NAVAL DISTRICT,
UNITED STATES NAVY YARD,
Charleston, S. C., May 11, 1922.

From: Commandant Sixth Naval District.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the regular Navy under act of June 4, 1920.

Reference (a): Bureau of Navigation letter N322-FJS-EW. No. 15372-258, May 1, 1922.

1. In accordance with instructions contained in reference (a) the following information relative to schools of instruction conducted in 1920 for the benefit of candidates for appointment to the permanent Navy under the act of June 4, 1920, is submitted:

(a) One school was established in this district for the instruction of officers attached to the receiving ship and navy yard, and such other officers as desired to take advantage of the opportunity.

(b) This school was established by Capt. Louis J. Connelly, United States Navy, commanding the receiving ship, on August 2, 1920.

(c) The school continued instructions until May 9, 1921—one week prior to the date set for the examination.

(d) No reserve officers of class 5 attended the school.

(eq There were no reserve officers, class 5, on active duty in this district on August 2, 1920.

(f) No temporary or reserve officers attached to this district were assigned to such duty that would prevent their attendance at this school.

2. There was a school of instruction established by the commander destroyer squadrons, at the United States customhouse, Charleston, S. C., for the benefit of his command, and an invitation was extended to temporary and reserve officers in this vicinity to attend.

By direction:

HILARY H. ROYALL,

UNITED STATES NAVY YARD,
New York, May 18, 1922.

From: The commandant.

To: The chief of the Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation for examination for appointment to the regular Navy under act of June 4, 1920.

Reference: (a) Bureau Navigation letter No. 15372-258 N 322-FJS-EW, May 1, 1922.

1. In accordance with the instructions contained in reference (a), the following information is furnished the bureau in regard to schools of instruction conducted for the benefit of temporary officers preparing for examination for the permanent Navy.

(a) Schools: 1. Naval construction school. 2. Supply officers' school. 3. Line officers' school.

(b) Dates established: 1. Naval construction, August 15, 1919. 2. Supply officers, August 5, 1920. 3. Line officers, September 15, 1920.

(c) How long continued: 1. Naval construction, May 16, 1920. 2. Supply officers, January 10, 1921. 3. Line officers, May 10, 1921.

(d) How many reserves of class 5 attended these schools: None.

(e) How many reserves of class 5 attached to the yard and station did not attend: None.

(f) How many were on such duty that they could not attend: None.

2. A report covering the schools conducted at Rockaway air station has been submitted to the bureau via the third naval district.

C. T. WOGELGESANG.

MAY 13, 1922.

From: Commandant First Naval District.

To: Bureau of Navigation, Navy Department, Washington, D. C.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the regular Navy under act of June 4, 1920.

Reference: (a) Bureau's letter N322-FJS-EW, 15372-258 of May 1, 1922.

1. In accordance with the instructions contained in reference (a), the following information is submitted:

(a) Schools were established at navy yard, Boston, Mass.; navy yard, Portsmouth, N. H.

(b) The school at the navy yard, Portsmouth, N. H., was established on November 15, 1920; the school at the navy yard, Boston, Mass., was established in July, 1920.

(c) Both of these schools continued until examinations were held in May, 1921.

(d) The school at Portsmouth (N. H.) Navy Yard was attended by no reserve officers of class 5. The school at the Boston Navy Yard was attended by four or five reserve officers of class 3 of the Naval Reserve Force.

(e) There were no reserve officers of class 5 on duty at the navy yard, Portsmouth, N. H. There were no reserve officers of class 5 on duty at the navy yard, Boston, Mass., subsequent to July, 1920. No record of attendance was kept, but classes varied due to ships present, from 20 to 35, probably averaging 25. It is not known exactly how many reserves of class 5 attended, but it is known four or five attended at different times.

Subject: Instructions of temporary and reserve officers in preparation of examination for appointment to the regular Navy under act of June 4, 1920.

(f) All officers attached to the Boston Navy Yard who desired to attend this school were excused from their regular duties during school hours, by order

of the commandant. There were no class 5 officers of the Reserve Force on duty at the navy yard, Boston, Mass., or at the navy yard, Portsmouth, N. H., during the time these schools were in operation.

W. L. PRYOR,
Commander, United States Navy.

By direction.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., May 9, 1922.

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the regular Navy under act of June 4, 1920.

Reference: (a) Bu. Nav. File N322-FJS-EW. 15372-258, of May 1, 1922.

1. Except for the within inclosure there is no record at the Naval Academy of any regular school for temporary and reserve officers having been established. In conversation with one of the officers who was here at the time and took advantage of the school it has been learned that this officer took up the question of having established with the aide to the superintendent, who suggested that it would be better if the heads of departments would handle the matter voluntarily. The officer concerned thereupon made application to Commander Vernou, head of department of navigation, who promptly acquiesced in the plan, and started a navigation school, as shown in the inclosure. These schools, according to this officer, were voluntary and did excellent work.

2. There is no definite record of the date, except that the date of the within inclosure is December 8.

3. It is not known how long they continued, but I understand they continued as long as the student officers desired.

4. The records of the Naval Academy fail to show that there were any class-5 officers attached to the Naval Academy in December, 1920.

5. The inclosure shows that all temporary and reserve officers serving in departments of the Naval Academy were permitted to attend the schools.

HENRY B. WILSON.

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., December 8, 1920.

To: Heads of departments.

Subject: Classes of instruction in navigation and ordnance.

1. The head of department of navigation has formed a school of instruction for temporary and reserve officers in this vicinity in order that they may prepare for their examination in May, 1921. School to be held Monday and Thursday mornings of each week from 10 a. m. until noon, Lieut. James Donald, United States Navy, of the department of ordnance, has volunteered his service for instructions in ordnance one afternoon each week.

2. The heads of the various departments will permit all temporary and reserve officers serving in their departments to attend these classes.

A. H. SCALES,
Rear Admiral, United States Navy, Superintendent.

SAN JUAN, P. R., May 16, 1922.

From: District communication superintendent.

To: Bureau of Navigation, Navy Department, Washington, D. C.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the regular Navy under act of June 4, 1920.

Reference: (a) Bunav. Letr. 15372-258 N322-FJS Ew of May 2, 1922.

1. There is no information on file in this office from which to prepare a reply to reference (a), and all officers who were on duty in Porto Rico at that time have been detached. The matter is, however, being referred to Lieut. E. P. Nickinson, United States Navy, U. S. S. *North Dakota*, who was district communication superintendent San Juan communication district at that time.

2. The undersigned is almost certain that there were no reserves of class 5 attached to the stations in Porto Rico. There was, however, one temporary officer, regular Navy, who failed to qualify for commission, due mainly, it is

believed, to lack of time or schools for preparation for the examination, on account of his detail here in Porto Rico and the nature of his duties, which was such that he would have had to neglect them in order to have time to prepare properly for the examination and benefit himself personally.

RUFUS KING.

OFFICE OF THE COMMANDANT,
UNITED STATES NAVAL STATION,
Guantanamo Bay, Cuba, May 10, 1922.

From: Commandant.

To: Chief of Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the regular Navy under act of June 4, 1920.

Reference: (a) Bu. Nav's letter, file 15372-258 N322-FJS-EW. of May 2, 1922.

1. In reply to above reference, under its headings (a), (b), (c), (d), (e), (f): None.

R. T. MENNER.

SAN PEDRO, CALIF., May 18, 1922.

From: Commander in Chief, United States Pacific Fleet.

To: The Chief of the Bureau of Navigation.

Subject: Instruction of temporary and reserve officers for examination under act of June 4, 1920.

Reference: Bunav, ltr. file N322-FJS-EW, 15372-258 of May 2, '22.

Inclosure: Comatrons letter file 503 of May 15, '22.

1. Search in the files of the commander in chief has brought forth nothing of any value in the preparation of a reply to reference. Squadron commanders have been directed to obtain such information as may be possible both from files and from officers who were in the fleet during the period in question.

2. Inclosure is the first reply received and is forwarded alone to avoid the delay incident to waiting for reports from other forces and the compilation of a combined reply. Other reports will be forwarded as rapidly as they are received.

B. F. HUTCHISON.

Chief of Staff.

UNITED STATES PACIFIC FLEET AIR SQUADRONS,
U. S. S. "AROOSTOOK," FLAGSHIP,
San Diego, Calif., May 15, 1922.

From: Commander air squadrons.

To: Commander in Chief, United States Pacific Fleet.

Subject: Instruction of temporary and reserve officers in preparation for examination for appointment to the Regular Navy under act of June 4, 1920.

Reference: (a) C-in-C letter file 3467 of May 11, 1920.

Inclosures: (a) Copy of Air Detachment Routine Order No. 3.

(b) Copy of Special Joint Order of August 31, 1920.

(c) Copy Officers' Instruction Bulletin No. 2.

(d) Copy Notice for Instructing Officers, October 8, 1920.

(e) Copy Notice for Instructing Officers, October 30, 1920.

(f) Copy Bureau of Navigation letter N315-RAB-AB of November 9, 1920, and reply thereto.

1. The commander in chief is hereby informed that instruction of officers in line subjects was inaugurated in the air squadrons on December 23, 1919, and the order (inclosure A) was carried out as service needs permitted until the latter part of August, 1920, when a regular joint school for officers attached to the Naval Air Station and Fleet Air Squadron was organized. This is covered in inclosure B.

2. Inclosures C, D, E, and F will indicate the nature of the work carried out and the manner of conducting the school. Attendance was absolutely compulsory and a record kept of attendance. Marks were assigned for recitations and regular lessons given out.

3. Excepting for occasional short periods when fleet work interfered there were no interruptions to the school work, the officers attending studied conscientiously, and showed steady improvement. On December 28, 1920, the *Aroostook* and seaplane squadron departed for Panama and took some 30 officers away from the school, but these officers so detached employed such spare time as was available in study. Upon return to the base on March 9, 1921, they resumed their studies with the class.

4. Two weeks previous to the actual day set for the beginning of the examination all officers involved were excused from all duties, their work being handled by such Naval Academy officers as were available. During the period special classes were held for those needing coaching, or desiring further special instruction.

5. The questions asked by the bureau in Bureau of Navigation letter No. N322-FJS-EW, 15372-258 of May 2 are answered below:

(a), (b), and (c) One school in the air detachment established December 23, 1919, consisted of weekly lectures Friday nights. Attendance compulsory. Discontinued in spring of 1920 for fleet target practice. Second school, naval air station and air force combined; established September 7 and continued until examinations on May 26, 1921.

(d) All class 5 officers attached to the force; attendance compulsory. Thirty-four class 5 and 16 temporary officers on rolls.

(e) None.

(f) None; excepting from December 29, 1920, to March 9, 1921, when the *Aroostook* and seaplane squadron was at Panama.

H. V. BUTLER.

AIR DETACHMENT, UNITED STATES PACIFIC FLEET,
U. S. S. "AROOSTOOK," FLAGSHIP,
San Pedro, Calif., December 23, 1919.

Routine Order No. 3.

Subject: Theoretical and practical training for naval aviators of Fleet Air Detachment.

1. The courses of training as outlined below will go into effect as soon after January 1, 1920, as inspection duties on rebuilding of ship airplanes will permit.

2. There will be one general course to be taken by all pilots of the detachment, with exceptions for Naval Academy graduates, as indicated. In addition there will be four special courses, (B), (C), (D), and (E), which for the present will be given to pilots in accordance with their squadron assignments. If found practicable in the future, after a pilot has completely qualified on the subjects of one of the special courses he will be given opportunity to qualify in one or more additional special courses.

3. Tentative outline of the general courses is as follows:

(A) General course—

- (1) Naval customs and regulations.¹
- (2) Official correspondence.
- (3) Air detachment routine.
- (4) Signals.
- (5) Radio.¹
- (6) Seamanship (surface craft).¹
- (7) Navigation (surface craft).¹
- (8) Seamanship (aircraft).¹
- (9) Navigation (aircraft).¹
- (10) Characteristics of the United States naval vessels.¹
- (11) Naval tactics.¹
- (12) Naval gunnery and fire control (general).¹
- (13) Naval strategy (general).¹
- (14) Naval air reconnaissance.¹
- (15) Navy air strategy.¹

4. Tentative outlines of the special courses are as follows:

(B) Seaplane course—

- (1) Operation and maintenance of seaplanes on fleet detachment duty.

¹ To be omitted by Naval Academy graduates.

² Divided instruction for H/A pilots and L/A pilots.

- (2) Dispatch duty.
- (3) Patrol duty.
- (4) Seaplane reconnaissance duty.
- (5) Seaplane gunnery; defense tactics.
- (6) Bombing.

(7) Spotting gunfire of ships.

(C) Ship-plane course—

- (1) Operation and maintenance of ship planes.
- (2) Spotting gunfire of ships.
- (3) Ship-plane gunnery; offense and defense tactics.
- (4) Ship-plane dispatch duty.
- (6) Cross-country flying.

(D) Torpedo-plane course—

- (1) Operation and maintenance of torpedo planes on fleet detachment duty.
- (2) Adjustment and maintenance of naval torpedoes.
- (3) Torpedo fire.
- (4) Torpedo-plane tactics.
- (5) Torpedo-plane gunnery; defense tactics.
- (6) Bombing.

(E) Kite-balloon course—

- (1) Operation and maintenance of kite balloons on fleet detachment duty.
- (2) Spotting gunfire.

5. Assignment of officers for instructing duty is as follows:

Supervision of all air detachment training and in charge of (A) general course—Lieut. Commander M. A. Mitscher, United States Navy. Assistants for general course—Lieut. A. I. Flynn, United States Navy; Lieut. F. A. Ruf, United States Navy; Lieut. L. T. Barin, United States Naval Reserve Force; Gunner J. E. Reuschel, United States Navy.

In charge (B) seaplane course—Lieut. Commander C. P. Mason, United States Navy; assistant, Lieut. G. L. Compo, United States Naval Reserve Force.

In charge (C) ship-plane course— ———; assistant, Lieut. Commander W. Masek, United States Navy.

In charge (E) kite-balloon course—Lieut. H. W. Hoyt, United States Navy.

6. Assignment for torpedo-plane course will be made as soon as personnel for torpedo-plane squadron is available.

7. Officers assigned in charge of courses will prepare tentative programs of the theoretical and practical subdivisions of details of the subjects outlined herein in conference with the officer supervising all detachment training; these will be discussed at the detachment commander's conference December 29.

H. C. MUSTIN.

SAN DIEGO, CALIF., August 31, 1920.

Special joint order.

From: Commanding officer, naval air station, San Diego, commander air force, United States Pacific Fleet.

To: Naval air station, San Diego, Calif., air force, United States Pacific Fleet.

Subject: Preparation of officers of the Naval Reserve Force and temporary officers United States Navy for promotion to permanent commissions in line of Navy.

1. In order to prepare the temporary and reserve officers who are candidates for permanent commissions in the line of the Navy for the examination to be conducted by the Bureau of Navigation, a course of instruction in all subjects will be undertaken by the air station and air force, United States Pacific Fleet.

2. The course will commence Tuesday, September 7, 1920, and will continue five months or more. The places of instruction will be announced prior to date of commencement of the course.

3. Instructors in charge of courses are detailed as follows: Navigation—Lieut. A. I. Flynn, United States Navy, air force; seamanship—Lieut. Commander G. D. Murray, United States Navy, air station; ordnance—Lieut. Commander H. B. Grow, United States Navy, air force; steam engineering and electricity—Lieut. J. J. Bartholdi, United States Navy, air force; law and regulations—Lieut. Commander C. C. Jersey, United States Navy, staff commandant, naval base, San Diego.

By authority of commandant, naval base, San Diego. Assistant instructors will be detailed later.

4. As there are five general headings for instruction and five days available each week, the officers will be divided into five sections. The distribution of officers in sections will be announced later; as far as practicable a section will contain officers of the same subdivision of station or air force.

5. There will be daily instruction period, excepting Saturdays and Sundays, from 1.30 to 3.30 p. m. Periods are assigned to sections as follows:

Navigation: Monday, first section; Tuesday, second section; Wednesday, third section; Thursday, fourth section; Friday, fifth section.

Seamanship: Monday, second section; Tuesday, third section; Wednesday, fourth section; Thursday, fifth section; Friday, sixth section.

Ordnance: Monday, third section; Tuesday, fourth section; Wednesday, fifth section; Thursday, first section; Friday, second section.

Steam engineering electricity: Monday, fourth section; Tuesday, fifth section; Wednesday, first section; Thursday, second section; Friday, third section.

Law and regulations: Monday, fifth section; Tuesday, first section; Wednesday, second section; Thursday, third section; Friday, fourth section.

6. Officers under instruction will be given a mark each month in each subject to be determined by written examinations.

7. Pending receipt of books and periodicals to be designated as textbooks, the instruction period will consist of lectures; after receipt of textbooks definite lessons in each subject will be assigned daily. No officer under instruction will absent himself from an instruction period without permission of the head of the organization to which he belongs.

8. The instruction of temporary and reserve officers is one of the most serious duties now confronting the air station and the air force, and it is hoped that all concerned will cooperate to the end that officers will be given the best facilities possible under the circumstances to prepare for the coming examinations.

J. H. TOMB.
H. C. MUSTIN.

UNITED STATES NAVAL AIR STATION,
San Diego, Calif., October 8, 1920.

Officers' Instruction Bulletin No. 2.

1. Having been placed in charge of the course of instruction for the temporary and reserve officers who are candidates for permanent commissions in the line of the Navy, the following schedule is drawn up. As Wednesday afternoon has been set aside for athletics, the instruction period on that day has been canceled.

2. Sections:

Subjects.	October—											
	11	12	14	15	18	19	21	22	25	26	28	29
Engineering.....	1	2	3	4	5	1	2	3	4	5	1	2
Law and regulations.....	2	3	4	5	1	2	3	4	5	1	2	3
Navigation.....	3	4	5	1	2	3	4	5	1	2	3	4
Seamanship.....	4	5	1	2	3	4	5	1	2	3	4	5
Ordnance.....	5	1	2	3	4	5	1	2	3	4	5	1

3. Instructors in charge of courses are detailed as follows: Navigation—Lieut. A. J. Flynn, United States Navy; Lieut. H. V. Baugh, United States Navy. Seamanship—Lieut. Commander A. T. Clay, United States Navy. Ordnance—Lieut. Commander H. B. Grow, United States Navy; Lieut. Roman J. Miller, United States Navy. Engineering and electricity—Lieut. J. J. Bartholdi, United States Navy. Law and regulations—Lieut. Commander C. C. Jersey, United States Navy.

4. The distribution of officers in sections will be as given in Officers' Information Bulletin No. 1.

5. Instruction periods will be from 1.30 to 3.30 p. m. Mondays, Tuesdays, Thursdays, and Fridays.

6. All officers detailed as instructors are desirous of doing all in their power to aid the student officers and will give all assistance possible, but the success or failure in the examination will depend largely on study done outside the section room. This study will be greatly facilitated when books have been procured.

A. T. CLAY.

UNITED STATES NAVAL BASE,
San Diego, Calif., October 8, 1920.

Notice for instruction officers.

1. There will be between Monday, October 11, 1920, and the end of the year nine periods for each section in each subject. Of these, three will be given to examination and six to instruction.

2. With only six periods for actual instruction, instructors will arrange their courses to cover as much ground as possible, following the outline presented by the department in its circular letter of information to officers eligible for examination. This is necessary, as a large part of the officers of the fleet air force will go south with the fleet the first part of January, 1921.

3. The following days have been assigned for the October examinations, which will be on the subjects covered since the organization of the school: October 22, law and regulations; October 25, seamanship; October 26, engineering; October 28, ordnance; October 29, navigation.

4. Examinations will be held in the mess room of the bachelor officers' quarters during the regular instruction period. Instructing officers will draw up questions on work covered and submit to me and I will conduct the examination. The papers will be returned to the instructing officers for marking and returned to me with marks assigned in blue pencil on each question.

5. It is believed that the subjects prescribed for the ensigns' examination can be finished by the end of the year.

6. This notice will be published to the sections at the instruction period on Monday, October 11, 1920.

A. T. CLAY.

UNITED STATES NAVAL AIR STATION,
San Diego, Calif., October 30, 1920.

Officers' Instruction Bulletin No. 3.

1. Recitation periods for November will be on following schedule:

Sections.

Subjects.	November—														
	4	5	8	9	11	12	15	16	18	19	22	23	25	26	30
Seamanship.....	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Ordnance.....	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1
Engineering.....	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2
International law.....	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3
Navigation.....	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4

2. Examinations will be given as follows: December 1, international law; December 2, seamanship; December 5, engineering; December 6, ordnance; December 8, navigation.

A. T. CLAY.

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., November 9, 1920.

From: Bureau of Navigation.

To: Commander Air Detachment, Atlantic Fleet; Commander Air Detachment Pacific Fleet; and all naval air stations.

Subject: Instruction of temporary and reserve officers for the examinations May, 1921.

1. It is requested that the Bureau of Navigation be notified as to what instructions or school work is being carried on in order to prepare the officers (temporary and reserve) for the examinations to be held in May, 1921.

R. F. BURG.

OFFICE OF THE COMMANDANT,
UNITED STATES NAVAL STATION,
St. Thomas, Virgin Islands, May 17, 1922.

[First indorsement.]

From: Governor, Virgin Islands (commandant, naval station).

To: Bureau of Navigation.

Subject: Instruction of temporary and reserve officers in preparation of examination for appointment to the Regular Navy under act of June 4, 1920.

1. The governor assumed office April 26, 1921. The examination in question was held in the Virgin Islands on May 16, 1921.

2. The Bureau's questions are answered as follows:

(a) There were no schools in operation when the present governor assumed office. There is nothing on record to show that such schools existed prior to that date. There are no officers now here who were here prior to that date and who have any knowledge in the premises.

(b) See answer to (a).

(c) See answer to (a).

(d) See answer to (a).

(e) See answer to (a).

(f) Five officers in this command took the examination on May 16, 1921, as follows:

Lieut. (T.) Gregory Cullen: Qualified as ensign, but refused commission and resigned from Navy.

Lieut. (T.) James A. Featherston: Failed in examination and reverted to gunner.

Ensign (T.) Howard A. Bradbury: Qualified as ensign and accepted.

Ensign (T.) Howell Hedrick: Qualified as boatswain and accepted.

Ensign (T.) William Corey: Failed on examination and was duly mustered out.

SUMNER E. W. KITTELLE.

Let us come to the Akron school. You said there was a school established at Akron. I will ask you to state how many reserves and temporary officers were at Akron at the time that school started.

Captain WILLIAMS. I can not—

Senator WALSH. Do you not know, as a matter of fact—

The CHAIRMAN. Senator, one question at a time. Let him answer one question before you ask another.

Senator WALSH. Do you not know, as a matter of fact, that Akron was a student school and not a place where reserves or temporary officers were at all? Do you or do you not know that?

Captain WILLIAMS. I do not.

Senator WALSH. Is there anybody here that knows?

Captain WILLIAMS. I can find out.

Senator WALSH. So nobody that you have brought here knows whether the school at Akron was attended by others than students and have no proof whether that affected a single reserve officer or a temporary officer at all.

Captain WILLIAMS. I can produce that proof.

Senator WALSH. Is there anybody here who knows about that school?

Lieutenant BRADFORD. I do.

The CHAIRMAN. I think these long discussions are not getting us along very fast. I think, Senator, if you would ask the witness some concrete questions and permit him to answer we would get along better.

Senator WALSH. But I can not get an answer. After this long discussion the other day about these schools I thought we had gotten the situation pretty well cleared up by the testimony of Captain Mustin, from San Diego, who had shown perhaps the keenest interest of any commanding officer so far as the evidence shows, and he had agreed that no schools there were started until that letter. But now we find a letter produced here this morning from Akron, Ohio, that a school was started there 22 months before the examination was

held, and I am informed by these young men that Akron, Ohio, is a student school, and that there were no reserve or temporary officers there. There is no question about that, and not one man was affected.

The CHAIRMAN. Would it not be better to ask Captain Williams the direct question and prove that was only a student school?

Senator WALSH. How far am I going to get if the department can not give me this information? Must I rely on these young men who are merely lieutenants and assigned to post duties to go out and get this information when it is right in the department, and this man has been sent down here with all the information available, knowing that this is an important issue, the period of time of study for this examination and the character of it, the number of hours devoted a day to preparation for it, whether it was compulsory or not—and then to have submitted here a letter from Akron which he offers, because he thinks it has a bearing on this question, and which we argue has no bearing at all.

Captain WILLIAMS. The information the Senator desires will be obtained. I do not carry these figures in my head. They can be obtained from the department and will be placed in the record if he will formulate his question in such form as to get the answer.

Senator WALSH. Can you not send somebody now to the phone and find out the information and let us know in 15 minutes.

Captain WILLIAMS. He wants to know what was the character of the school at Akron, Ohio.

Senator WALSH. I want to know what reserves and temporary officers took instructions that were stationed at Akron, Ohio, when the school to which the captain refers was established. You claim it was established in 1919.

Captain WILLIAMS. August, 1919.

The CHAIRMAN. The Senator desires to know what was the character of the school mentioned in the letter which you read signed by W. H. Hoyt.

Senator WALSH. Yes; the number of students, what their standing was, who attended, particularly the reserve officers and temporary officers who attended, the claim being made here it was a student school and not a school for reserve officers to prepare for the examination.

The CHAIRMAN. Why do you not ask the direct question whether it was for training reserve officers or merely for students?

Senator WALSH. I thought another way of finding out just what the situation was, is to find out the names of the students who attended, in view of the claim made by these young men that no reserve or temporary officers attended that school.

Captain WILLIAMS. I submit the letter was a direct reply to the letter of July 21, 1919. That is my understanding of it, and that is the reason I quoted it.

Senator WALSH. Do you know any other schools that were established before October, 1920, except that Akron school?

Captain WILLIAMS. I have here a letter, an official document, in relation to Pearl Harbor.

(See letter dated Pearl Harbor, Hawaii, March 1, 1920, p. 153.)

Senator WALSH. It is apparent from that letter that a school was established at Pearl Harbor, with thorough courses and opportunity for study. Will you state how many reserve and temporary officers were at Pearl Harbor at that time?

Captain WILLIAMS. I will get it for you.

Senator WALSH. What date is that letter, Captain?

Captain WILLIAMS. July 21, 1920.

The CHAIRMAN. Does that question cover all you want to know, or do you want to know how many in the aviation branch were at Pearl Harbor?

Senator WALSH. I mean class 5, of course; how many reserve and temporary officers in class 5 who later would be likely to take the examination?

Captain WILLIAMS. I think the chairman's request will cover that, the date of the establishment of each one of these schools, and how many reserve and temporary aviators were at these schools.

Senator WALSH. I want to know what schools were established, when they were established, what temporary and reserve officers were stationed at these places so that the schools were available to them. You have told us about Akron, and you have told us about Pearl Harbor. My information is that at Akron there were no reserves and temporary officers.

Captain WILLIAMS. You may be right.

Senator WALSH. And my information is that at Pearl Harbor there were practically none there, maybe two or three. What is the next school, Captain?

Captain WILLIAMS. We have no more of that date.

Senator WALSH. Will you agree that so far as you have been furnished with information, you have a record of no schools whatever being established under the order of July, 1919, except these two, until the fall of 1920?

Captain WILLIAMS. I have no record up to the present moment.

Senator WALSH. Will you let me have the letter of 1919, please, a moment, or the order of 1919. This order reads in part as follows:

"It is directed that all commanding officers inaugurate courses of instruction in the various subjects pertaining to the Navy and naval aviation."

Does an order using the word "direction" imply a direction to do something?

Captain WILLIAMS. It does.

Senator WALSH. This order further reads, "Commanding officers will keep this in mind and will report results of the instruction and their estimates of the relative ability of the officers under their command."

Have you any record of reports made by the officers under the order of July, 1919?

Captain WILLIAMS. Yes, sir. In reply to your question, Senator, I want to submit a letter of July 28, 1920, addressed to all ships and stations.

Senator WALSH. Pardon me, Captain. Have you any letter between July 21, 1919, and July, 1920?

Captain WILLIAMS. I have not here; no, sir.

Senator WALSH. So one whole year has expired since the commanding officers were directed to do something, and you have no record of whether they ever carried out those instructions or not?

Captain WILLIAMS. In the normal course of events we would not have.

Senator WALSH. Does it not go back to what I said, that as a matter of fact this order or letter was considered inoperative and was generally agreed to by the officers as being inoperative, this direction and this order, until a later date?

The CHAIRMAN. When was the order issued giving the scope and character of the examination; what was the date of it?

Captain WILLIAMS. August, 1920. I want to call attention to this other circular which, I think, has not been put in the record yet.

Senator WALSH. I suppose, Mr. Chairman, you are reasoning, and perhaps properly so—I am not disputing it—that this was a preliminary order, and in the natural course of events would not become operative until another order came giving the scope and character of the courses.

The CHAIRMAN. That is my impression.

Senator WALSH. That is what I figured. As a matter of fact, it appears here that one school at least, a student school, or some other kind of school, at Akron, Ohio, was able to be started and a course of study outlined that was later set forth as being the course on which these students should be examined.

The CHAIRMAN. My idea is this, whether the officers commanding those stations were guilty of disobeying orders—

Senator WALSH. Yes.

The CHAIRMAN. Or whether it was the department, whether the responsibility rested upon the department itself or the individual officers of the stations.

Senator WALSH. That is in my mind. You will note from this letter, Mr. Chairman, it appears to be a direction for the establishment of schools regardless of an examination. The question of the examination came up later. This says, "During the period of inactivity these schools ought to be started and they ought to be given instruction." It seems to be broader and more comprehensive than simply an order to provide schools for the examination.

Captain WILLIAMS. It was most assuredly. The law had not been passed at that time. It was not passed until June 4, 1920. This was an extraordinary preparation which the department took to warn these young gentlemen that they would be examined.

Senator WALSH. Warn them? It was to the commanding officers, was it not?

Captain WILLIAMS. Yes, sir.

Senator WALSH. If they treated it as of no consequence, what would you expect of these young men?

Captain WILLIAMS. I have no proof they treated it as of no consequence.

Senator WALSH. Do you still claim they took this seriously or started schools under it?

Captain WILLIAMS. I should most assuredly say so.

Senator WALSH. Will you produce your evidence?

Captain WILLIAMS. I have no evidence.

Senator WALSH. How can we make any progress here?

Captain WILLIAMS. Without an extreme amount of labor, I can not prove here whether every order given in the Navy is carried out.

Senator WALSH. The whole underlying proposition is the claim that these men had plenty of opportunity to prepare for the examination?

Captain WILLIAMS. The charge is against the department, and I would like to submit this additional effort, which was made on July 28, 1920, in warning these young men that an examination would be held for the purpose of selecting those who were best fitted for the line of the Navy.

(The letter referred to is here printed in full, as follows:)

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., July 28, 1920.

Bureau of Navigation circular letter No. 49-20.

To: All ships and stations.

Subject: Special fitness reports.

1. Special fitness reports will be submitted on all reserve officers of the line on active duty and all temporary officers of the line who hold no permanent commissions. These reports shall be made up with reference to the qualification of the officers concerned for appointment to the line of the Regular Navy in the corresponding rank now held by them. No reports shall be submitted on chief warrant officers, temporarily lieutenants, who have served 15 years since date of original warrant.

2. Reports will be forwarded as of September 30, 1920, in addition to the semiannual report due on the date, on January 30, 1921, and on the date in May, 1921, set for the examination of temporary and reserve officers for appointment to the line of the Regular Navy. The reports will be submitted on the usual forms, but will be marked on page 1 in red ink "Special report on qualification for the line of the Regular Navy." Under the heading "Remarks" enter a specific statement that the officer is or is not qualified for a commission in the Regular Navy.

3. The following certificate will be entered after "Remarks": I certify on honor that I have submitted the above report without prejudice or partiality and with the best interest of the Navy solely in view.

4. These reports are for the information of the examining board only and it is not required that the first page be filled out. They will be forwarded directly to the Bureau of Navigation.

THOMAS WASHINGTON.

Senator WALSH. Is there anything in that about schools?

Captain WILLIAMS. No.

Senator WALSH. Then I shall proceed to put in testimony from these young men. It is very apparent that I can get no direct up-to-date information, at least, about these schools except by going to these young men themselves. I ask this officer to be sworn—

The CHAIRMAN. Have we not in the record an itemized statement of all of the schools? Did not you read that into the record the other day, all of the schools and when they were established? Of course, that gives you the information.

Senator WALSH. But no hours, whether every course was given by one man or not, or any reports sent by the commanding officer setting forth the information which he was supposed to supply the department in compliance with the order; no details as to the number of hours of the courses, when they were given, whether the attendance at the schools was compulsory or not, how many instructors there were, how much time was given to them—that information is not in the evidence we have in the record.

The CHAIRMAN. My recollection is that a part of those said it was compulsory and part said it was not compulsory. Part of them gave the hours of instruction as from 3 to 6, I think it was.

Captain WILLIAMS. One of them was from half past 3.

Mr. SCHUYLER. The hours ran between 3 and 6, as a general rule, something like that.

The CHAIRMAN. I think the report in one or two cases stated, Senator, there had been no school held at that place.

Senator WALSH. They are entirely different, no two were alike. So I have to find out about it.

The CHAIRMAN. But you have that in the record now.

Captain WILLIAMS. Those are in the record, Senator. Those papers I read Saturday.

Senator WALSH. I will proceed with my testimony, then. You have not any more testimony yourself?

Captain WILLIAMS. No.

Senator WALSH. There is no use of putting in any further defense until I finish my case.

Captain WILLIAMS. I have Admiral Bryan here to testify about the character of the examination. I would like to have him testify.

Senator WALSH. As to the character of the examination?

Captain WILLIAMS. Yes.

Senator WALSH. Has he the examination papers here?

Captain WILLIAMS. He can give them. I think he has all the data. He is the senior member of the examining board and was the second senior member.

Senator WALSH. Would you like to hear him first, Mr. Chairman?

The CHAIRMAN. I think that would be better.

TESTIMONY OF REAR ADMIRAL BENJAMIN CHAMBERS BRYAN, UNITED STATES NAVY.

(The witness was sworn.)

Captain WILLIAMS. Admiral, will you please tell the committee on what duty you are now and on what duty you were on May 16, 1921, and what were the circumstances surrounding that duty?

Admiral BRYAN. I am now a member of the naval examining retiring board. In May, 1921, I believe at that time I was the senior member of the board. I am now not the senior member.

The duties of the board are to prepare and conduct all examinations for promotion of officers, there being now a special duty to prepare and conduct examinations for the appointment of certain officers. The board is the deciding factor as to whether those officers are recommended for promotion or for transfer. That is the power given to them by the Secretary of Navy as the representative of the President.

Senator WALSH. Who are the examining board with you?

Admiral BRYAN. Rear Admiral Wood.

Senator WALSH. He was the chairman?

Admiral BRYAN. He was the president; and myself and Captain McNeely.

Senator WALSH. Those three constituted the board?

Admiral BRYAN. Yes. There were, of course, a great many others on the board. Finally, when the examinations were conducted there were some 54 officers on it.

Senator WALSH. Were any of these three connected with the aviation branch of the service?

Admiral BRYAN. No, sir.

Senator WALSH. Did these three men prepare the examinations?

Admiral BRYAN. They prepared all except the aviation.

Senator WALSH. So that all the papers on all subjects except aviation were prepared by men who had never been in aviation themselves and were not familiar with the subject?

Admiral BRYAN. Yes, sir; that is true.

Senator WALSH. So that the examinations given by these men were not prepared with the view of getting the information that one who knew aviation would give upon the general subject of line duties.

Admiral BRYAN. Our orders were to give them the same examination as we did line officers for promotion. That is what we prepared, with the exception that we left out one subject, strategy and tactics.

Senator WALSH. When you say that they prepared the questions, do you mean that they were prepared by subordinates under them or they themselves wrote them out?

Admiral BRYAN. I prepared electricity and marine engineering; Admiral Wood, military law, international law, and seamanship; Captain McNeely, ordnance and gunnery and navigation. That is as near as I can recollect. I do not know whether I have left out any subject or not.

Senator WALSH. Who examined the papers?

Admiral BRYAN. The papers were examined by subboards. You understand, Senator, this is a very big undertaking. When we first got orders about this, correspondence about it, they expected to have from 5,700 to 6,000 people to

examine. Going over that, I went up to the marine officers who are examining the records of their officers to find out how many they could do a day. They found they could not go over 25 records a day. Our records were not quite as condensed as theirs, so I estimated we could do 20 a day. That would take 5 days to do a hundred, and to do 5,000 would take 250 days, which was pretty close to a year. So I told the chief of the bureau then that we would have to have this divided up among subboards, and there were, I think, ordered altogether 54 officers. I have a list of them here, if you would like to have them.

Senator WALSH. So a subboard would take, for instance, all the papers in electricity and mark them?

Admiral BRYAN. A subboard took all the papers for one grade of officers in electricity. When the papers came in they were separated, all the lieutenants in one pile, the junior lieutenants in another place, and the ensigns in another. Then the papers were taken apart and the electricity of the ensigns sent to that board, and of the junior lieutenants to that board, and the lieutenants to the lieutenants' board.

Senator WALSH. As a matter of fact, first of all, these reserve officers in the aviation branch of the service were permitted to select the rank for which they wished to be examined?

Admiral BRYAN. No, sir; they were examined for the rank they held. They could not go above lieutenant.

Senator WALSH. Were they not asked what rank they wished to qualify for in the Regular Navy?

Admiral BRYAN. No, sir. They were allowed to state whether they would accept a lower rank or not, or whether they would accept a warrant rank.

Senator WALSH. Anyway, they were not given the same kind of examination?

Admiral BRYAN. Yes.

Senator WALSH. Whether they were ensigns or lieutenants, junior grade, or lieutenants, senior grade?

Admiral BRYAN. Yes, sir. Allowance was made for that in the marking and in consideration afterwards.

Senator WALSH. Have you a copy of the examination papers here?

Admiral BRYAN. Yes, sir; I have.

The CHAIRMAN. Do you wish those read?

Senator WALSH. No; just put them in the record. I just want to get the general scope of them.

(The examination questions above referred to are here printed in full, as follows:)

	Per cent.
(A) Navy regulations: Completely covered by chapters of regulations referred to circular issued by the Bureau of Navigation-----	100
(B) Seamanship: Five-sixths covered by circular of Bureau of Navigation-----	83
(C) Practical navigation: Completely covered by circular of Bureau of Navigation-----	100
(D) Practical navigation: Completely covered by circular of Bureau of Navigation-----	100
(E) Ordnance and gunnery: Completely covered by circular of Bureau of Navigation-----	100
(F) Ordnance and gunnery: 61.5 per cent covered by circular of Bureau of Navigation-----	61.50
(G) Navigation and piloting: 85 per cent covered by circular of Bureau of Navigation-----	85
(H) Marine engineering: 67 per cent covered by circular of Bureau of Navigation-----	67
(J) Electricity: 50 per cent covered by circular of Bureau of Navigation-----	50
(K) Military law: 50 per cent covered by circular of Bureau of Navigation-----	50
(L) International law: 50 per cent covered by circular of Bureau of Navigation-----	50
(M) Aeronautics: Completely covered by Bureau of Navigation circular of December 11, 1920-----	100
(N) Aeronautics: 100 per cent covered by circular of Bureau of Navigation-----	100
Average-----	80

Eighty per cent of total examination was specifically covered by circulars of Bureau of Navigation.

I.

EXAMINATION FOR TRANSFER OF TEMPORARY AND RESERVE ENSIGNS, LIEUTENANTS (J. G.), AND LIEUTENANTS TO PERMANENT APPOINTMENTS IN THE NAVY UNDER NAVAL APPROPRIATION ACT, APPROVED JUNE 4, 1920.

[With notes showing how each question is covered by the circulars issued by the Bureau of Navigation.]

GROUP A. NAVY REGULATIONS.

1. Describe the organization of the fleet, giving definition of the various subdivisions and the titles of the officer commanding each.

NOTE.—Covered by Chapter III, Navy Regulations, section 3, organization of fleet.

2. Give the relative rank of the officers of the Navy with the following officers of the (a) Army; (b) Marine Corps; (c) Coast Guard.

NOTE.—Completely covered by Chapter XI, Navy Regulations, articles 1010, 1011, and 1012.

How do officers of the Naval Reserve Force and National Naval Volunteers rank relatively with officers of the Regular Navy and Coast Guard?

NOTE.—Covered by Chapter XI, Navy Regulations, article 1016.

3. Give honors prescribed by the Navy Regulations when following officials pay an official visit on board a man-of-war: (a) The President; (b) the Secretary of the Navy; (c) the Assistant Secretary of the Navy; (d) the Admiral of the Navy; (e) the Commander in Chief of Fleet (rank of Admiral); same rank of Rear Admiral.

NOTE.—Covered by Chapter XII, Navy Regulations, article 1143.

Will there be any difference, and if so what will it be, if the official simply passes the ship with his official flag flying?

NOTE.—Covered by Chapter XII, article 1155.

4. When shall honors be dispensed with? Give occasions and officials to which each case refers.

NOTE.—Covered by Chapter XII, various articles.

5. Give the general duties of the navigator of a first-class battleship.

NOTE.—Covered by Chapter XXII, Navy Regulations.

6. Give the general duties of the officer of the deck of a first-class battleship.

NOTE.—Covered by Chapter XXIV, Navy Regulations.

GROUP B. SEAMANSHIP.

1. As O. O. D. of a battleship, what honors would you render under the following circumstances and how would they be returned?

(a) Your commanding officer leaves on an official visit.

(b) Your division commander of rank of rear admiral passes close aboard with flag flying.

(c) A battleship that has been on detached duty passes close aboard.

(d) When acting singly you fall in at sea with a British ship flying a vice admiral's flag.

NOTE.—This question is fully covered under sample question No. 8, Seamanship, "(8) Duties of officer of deck."

2. As O. O. D. of a battleship under way, you note that something is wrong with the steering gear of a vessel you were about to pass to starboard on an opposite course and you decide that collision with her is imminent. What commands would you give to wheel and engines and what would you do? What, in general, would the various divisions of the crew do?

NOTE.—Covered by sample question 11, Seamanship, "(11) What orders are given to steersman * * *?" and question 2, Navy Regulations, "(2) Emergency drills, * * *, collisions, * * *."

3. Describe the docking of any third-rate ship (lines used, how to handle ship, etc.), and the duties of the executive officer while in dock for the care and preservation of the ship. Select ship and dock and show by diagrams.

NOTE.—This question is not covered by any sample questions. First part is purely a matter of seamanship; second part is covered by Navy Regulations.

4. Turn a single right-hand ship in a small space. Wind blowing in and tide setting out. Make a sketch.

NOTE.—Completely covered by sample question 4. Seamanship, lieutenant (junior grade), "4. Turn right-handed single-screw steamer in limited space."

5. (1) You are officer of the deck of a battleship in formation (fleet or squadron). discuss relieving deck, keeping position in column, in line, and on line of bearing.

(2) What would you do if man overboard in vessel ahead of you, and you are fourth in column; by day and by night?

(3) What would you do if man fell overboard from your own ship, you being third in column?

NOTE.—Covered by sample question, Seamanship, ensign, "(8) Duties of officer of deck." "(5) Man overboard—lowering and handling of boats."

6. Unmoor ship, with swivel anchor on each bow, 45 fathoms of chain. You are first lieutenant in charge of the forecable.

NOTE.—Covered by sample question, Seamanship, lieutenant; "(1) How moor in stream with mooring swivel? How clear hawse?"

GROUP C. PRACTICAL NAVIGATION—BOOKS ALLOWED.

Indicate answers by hatch marks (#) and number them to correspond to the required findings.

On 9 April, 1920, at noon, a ship's position by observation was latitude 40° 50' N., longitude 70° 50' W. Sailed thence until 8 a. m. next day on course 220° true, speed 5 knots. At about 8 a. m. observed an altitude of the sun's lower limb 26° 56', IC (plus) 1' 30"; height of eye 40 feet.

W=8h. 00m. 00s.; C-W=4h. 43m. 20s.; chro. slow 1m. 40s. Continued same course and speed until local apparent noon, when navigator observed altitude of sun's lower limb on the meridian (bearing S.) to be 58° 30'. IC and height of eye as above.

Find: (1) D. R. position at 8 a. m.; (2) work line, finding altitude difference; (3) longitude corresponding to 8 a. m. D. R., latitude, and current per hour in longitude; (4) interval from time of a. m. sight to local apparent noon and the error of watch on local apparent noon; (5) D.R. position local apparent noon; (6) true noon latitude; (7) true noon longitude; (8) set and drift of current from noon to noon.

NOTE.—This question is fully covered by sample question. Navigation, ensign, No. 18.

GROUP D. PRACTICAL NAVIGATION—BOOKS ALLOWED.

Indicate answers by hatch marks (#) and number them to correspond to the required findings.

A navigator wishes to compensate his standard compass. A distant object offers the only means available at the time. The following observations on the distant object were taken.

Ship's head (p. s. c.) :	Distant. object (p. s. c.).	Ship's head (p. s. c.) :	Distant. object (p. s. c.).
0 -----	197	180 -----	203
30 -----	198	210 -----	202
60 -----	200	240 -----	200
90 -----	202	270 -----	198
120 -----	203	300 -----	197
150 -----	206	330 -----	194

Find: (1) State how to set azimuth circle to head ship north (mag.) in order to compensate on that heading. (2) State how to set pelorus to head ship N. E. (mag.). The navigator then proceeded to compensate on north (mag.). The distant object on this heading was observed to bear 210° (p. s. c.). (3) What was the deviation? (4) What correctors should be used to compensate for this? State definitely and completely how this compensation should be accomplished. The navigator then headed the ship east (mag.), and found that the distant object bore 195° (p. s. c.). (5) What correctors should be used for compensation for this? State definitely and completely how this compensation was accomplished. The navigator then headed the ship N. E. (mag.), and found that the distant object bore 204° (p. s. c.). (6) State definitely and completely what correctors should be used and how they should be used to compensate for this. (7) The navigator then headed the ship south

(mag.), west (mag.), and S. E. (mag.), and found 1° westerly deviation on each of these headings; what do?

NOTE.—Fully covered by sample question, Navigation, lieutenant No. 1.

GROUP E. ORDNANCE AND GUNNERY.

1. State the duties of a division officer required by United States Regulations and ship and gun drills. What notebook data and memoranda should be kept?

NOTE.—Covered by Navy Regulations and sample questions, Ordnance and gunnery, lieutenant (junior grade), "(6) Gunnery instructions."

2. Give the safety precautions when using great guns and small arms. Discuss hang-fires, misfires, and flarebacks; include in the latter when firing to windward and to leeward.

NOTE.—Covered by sample questions, O. and G., ensign, "(3) Precautions to be taken in handling small arms * * *"; O. and G., lieutenant (junior grade), "(6) Gunnery instructions."

3. Describe the methods employed in the training of gun pointers for the Navy. What qualifications are sought for in this training? Begin with recruits as they arrive on board ship.

NOTE.—Covered under sample question, O. and G., lieutenant (junior grade), "6. Gunnery instructions."

4. Discuss range-finding and fire-control methods and appliances. How spot and keep control after stations aloft are carried away?

NOTE.—Covered by sample questions, O. and G., lieutenant, "(1) Describe system of fire control."

GROUP F. ORDNANCE AND GUNNERY.

1. (a) What reports are made to the commanding officer in regard to the magazines and ammunition rooms and concerning the care of ammunition (1) When going into commission? (2) From time to time during the commission?

NOTE.—Covered by sample questions O. and G., lieutenant (junior grade), "(6) Gunnery instructions."

(b) Describe a modern dreadnaught ammunition hoist (a) for a turret, (b) for broadside guns.

NOTE.—Covered by sample questions O. and G., lieutenant, (junior grade), "(4) Care and preservation of powder and ammunition on board ship," (5) Storage of ammunition on board ship."

2. (a) Name the types of projectiles in use in the Navy. (b) What are their uses? (c) Describe the time fuse used in landing guns. (d) Describe any ignition fuse used in naval projectiles larger than 3-inch. (e) Describe the soft steel cap of A. P. projectiles; method of fitting it to the projectile; its purpose. (f) Describe the rotating band; method of fitting; purpose. (g) Describe a tracer.

NOTE.—This question is fairly well covered by sample questions O. and G., ensign, "(5) Describe projectile fuse primers of any gun with which you are familiar," O. and G., lieutenant (junior grade), "(6) Ordnance instructions."

3. (a) What is the general method of United States naval large-caliber gun construction? (b) What kind of steel is used? (c) What offensive weapons are carried by United States naval aircraft? (d) What types of antiaircraft guns are used on board United States naval vessels? (e) Describe briefly the ammunition used in these guns.

NOTE.—Partly covered by sample question O. and G., ensign, "(4) Describe any naval gun with which you are familiar," and by Aeronautics, "(g) Aircraft ordnance * * *."

4. (a) Give the general principles for the organization of a "fire and rescue party," its equipment, and its employment. (b) Discuss Infantry formation for street riots. (c) Describe a modern naval mine, include operation of anchor, character and weight of explosive, safety feature. (d) Describe the principle of a naval range finder.

NOTE.—(a) and (b) covered by Navigation, ensign, "(2) Emergency drills * * *"; Ordnance and gunnery, ensigns, "(2) School of squad and company in Infantry"; Ordnance and gunnery, lieutenant (junior grade), "(3) Organization of landing force." (c) and (d) not covered by sample questions, but found in textbooks on ordnance.

GROUP G. NAVIGATION AND PILOTING.—BOOKS NOT ALLOWED.

1. Describe the signals (and the resulting maneuvers) required by the international rules for preventing collisions at sea during day; night; fog.

NOTE.—Covered by sample question, Navigation, ensign “(1) Rules for prevention of collisions.”

2. What lights are carried by vessels under way and at anchor? What are their characteristics?

NOTE.—Covered by sample question, Navigation, ensign “(1) Rules for prevention of collisions.”

3. What system of buoyage is used in the United States? How are buoys painted, numbered, and placed? Describe all types of United States buoys.

NOTE.—Covered by sample question, Ensign, navigation, “(2) System of buoyage in the United States.”

4. How may soundings be used to fix your position when the direction of a known object is determined? How may soundings be used to determine position in a fog?

NOTE.—Covered by sample questions, Ensign, navigation, “(9) Using hand lead,” etc. “(10) How are soundings used to fix positions?” “(17) Use of sounding machine.”

5. Describe the compensation of a compass in a binnacle fitted with fore and aft and athwartship magnets, spheres, and heeling magnets. (Theoretical discussion not required.)

NOTE.—Covered by sample question, Lieutenant, navigation, “(1) Practical method of compensating compass for deviation.”

6. Describe the adjustments of a sextant at sea.

NOTE.—Covered by sample questions, Ensign, navigation, “(15) How adjust sextant?”

7. Give a detailed account of the duties at sea of a navigator of a vessel of war from daylight to 8 p. m. of one day, fair weather, not including duties as gunnery officer.

NOTE.—This question is fairly well covered by Ensign, navigation, “(18)” Is given in Bowditch and textbooks on navigation.

GROUP H. MARINE ENGINEERING.

1. Name the materials most used in marine engineering, their characteristics and purposes for which they are best fitted.

NOTE.—Not covered by any sample question. Should be known to anyone with mechanical engineering knowledge.

2. Sketch (free-hand) and describe a Babcock & Wilcox boiler as used in ships of the Navy, showing clearly the principle parts. Show by arrows the circulation of the water and of the products of combustion. State the material used in the following parts: Steam drums; headers; tubes.

NOTE.—Covered by sample questions, Ensign, engineering, “(4) Sketch and describe a modern boiler.”

3. Describe a steam turbine used for the motive power of a naval vessel. State the difference between an impulse and reaction turbine; tell how steam is prevented from leaking and how turbine is adjusted for wear.

NOTE.—Covered by sample questions, Ensign, engineering “(3)” Briefly describe a modern steam turbine.

4. Describe an evaporating and distilling plant for a naval vessel, and explain the advantages of using multiple effect.

NOTE.—Indicated by sample question, Lieutenant, engineering “(3)” Description of any auxiliary plant might be asked.

5. Describe a two-cycle and four-cycle Diesel marine engine, its principle, how fuel is supplied, how parts are kept cool, and how the engine is started and reversed.

NOTE.—Covered by sample question, Lieutenant (junior grade), engineering “(2) Describe an internal-combustion engine.”

6. State the duties and responsibilities of the engineer officer (a) preparatory to fueling ship, (b) while taking fuel on board, (c) in regard to fuel after receipt, (d) in regard to supplies and stores used in the engineer department.

NOTE.—(a), (b), and (c) covered by sample questions, Lieutenant, engineering, (1), (d) Covered by regulations.

GROUP J. ELECTRICITY.

1. Explain the fundamental principles of a generator and of a motor, and the difference between a generator for a direct current and for an alternating current.

NOTE.—An elementary question explained in all textbooks on electricity.

2. Describe a cell of a lead storage battery and tell how it is charged and how it is known that it needs charging or that it is fully charged, and precautions necessary in charging.

NOTE.—Covered by sample question, Lieutenant (junior grade), electricity, “(1) Describe a secondary battery.”

3. Describe a ground detector, an equalizer, a rheostat.

NOTE.—Elementary definitions given in any textbook on electricity. Partly covered in sample questions, Ensign, electricity, “(1) What is meant by operating dynamos in parallel? How done?”

4. (a) What is the underlying principle of the telephone? (b) Describe an electric telephone transmitter and receiver.

NOTE.—Elementary question given in any textbook on electricity.

5. Make an outline sketch of a radio sending and receiving set for a naval vessel (either spark or arc) and describe its principle and operation.

NOTE.—Covered by sample question, Lieutenant (junior grade), electricity, “(3) Describe any modern radio system.”

6. Explain the principle of the radio compass.

NOTE.—Not covered by any sample question in electricity; covered by navigation. aircraft.

GROUP K. MILITARY LAW.

1. (a) Who can convene a deck court? (b) How is it constituted? What officers are eligible?

NOTE.—(a) and (b) covered by sample question Ensign, military law, “(6) Who may order a deck court? (7) How is a deck court constituted?”

(c) Who may be tried by a deck court? May the accused object to being tried by deck court? (d) How are witnesses summoned? (e) Who approve (or disapprove) the proceedings and sentence? (f) What punishments can a deck court inflict? (g) What is the effect of previous convictions?

NOTE.—All covered by regulations.

2. (a) What punishments can a commanding officer inflict on a commissioned or warrant officer? On a person of inferior rating? (b) What are the limitations as to the use of irons? (c) When the captain is not in the ship, what are the limitations of the officer in accidental command as to punishments?

NOTE.—Completely covered by sample questions, Ensign, military law, (1), (2), and (3).

3. (a) Who can convene a summary court-martial? (b) How is it constituted? What officers are eligible as members?

NOTE.—(a) and (b) covered by sample question, Ensign, military law, (4) and (5).

(c) Who may be tried by summary court-martial? Can the accused object to being tried by summary court-martial? (d) How are witnesses summoned? (e) Who approve (or disapprove) the proceedings and sentence? (f) What punishments can a summary court-martial inflict? (g) What is the effect of previous convictions?

Covered by “Courts and Boards,” forming a part of Regulations.

4. (a) State the duties of the recorder of a summary court. (b) Does this duty exempt officers from other duties? (c) May the accused be a witness? (d) When is it proper to introduce evidence of previous convictions? (e) When the sentence involves confinement for a period exceeding 10 days on diminished ration what certificate must appear on the record?

5. (1) What are the duties of the judge advocate of a general court-martial when the accused is not represented by counsel? (2) Suppose the accused has no counsel and seeks advice of the judge advocate as to whether he should plead “guilty” or “not guilty,” what should the judge advocate do? (3) If the judge advocate or a member should testify, at what point in the

trial should they preferably be called upon as witnesses? (4) Has the prosecution or the defense the privilege of making the closing argument? (5) Suppose that the court disregards the advice of the judge advocate, what may he do? Can he enter a protest on the record? (6) Is the judge advocate allowed to be present during closed court? (7) Is the judge advocate allowed to be present during the proceedings in revision of a general court-martial?

GROUP I. INTERNATIONAL LAW.

1. (a) Under what conditions is an enemy coast or port regarded as legally blockaded? (b) What constitutes a notice of blockade? (c) What is necessary to make a blockade? (d) What constitutes an effective blockade? (e) If a vessel succeeds in entering a blockaded port without discovery is the blockade necessarily broken? (f) What constitutes a breach of a regularly notified and properly maintained blockade? (g) Under what conditions is a blockade regarded as raised or broken?

NOTE.—Covered under sample questions, International law, ensign (3).

2. Define contraband; noncontraband. Define direct and indirect unneutral service.

3. Give list of ship's papers, with short description of each which should be found on all ships.

NOTE.—Covered under sample question, International law, ensign (2).

4. As prize master, give details of actions from time of receipt of orders from your commanding officer until you deliver the vessel (turn her over) to—whom?

GROUP M.¹ AERONAUTICS.

ENGINES AND POWER PLANTS.²

1. (a) Name in their order of occurrence the operations which take place in the four-stroke cycle internal-combustion engine, stating approximately at what period in the cycle the various operations occur. (b) Why in aircraft practice is the four-stroke cycle engine so universally preferred to the two-stroke cycle engine? (c) What considerations should govern in the design and arrangement of an aircraft power plant as a whole? (In answering this question take into consideration not only the engine itself but the power-plant accessories as well.) (d) Why is the air-cooled engine so largely used in small airplanes. (single-seater fighters, etc.) and so seldom used in larger types? Why is the air-cooled engine not readily adaptable to the dirigible?

2. (a) Make an elementary wiring diagram of a high-tension magneto. What is the function of the condenser? Safety spark gap? (b) What means are provided in the Zenith carbureter for controlling the amount of mixture and the quality of the mixture? What is the effect of a lean mixture? Of a rich mixture? (c) What are the advantages and disadvantages of the Delco ignition system as compared with ordinary magneto ignition? (d) Why is a variable pitch propeller desirable in both heavier-than-air and lighter-than-air craft power plants? Why is gearing employed in propeller drive? What is commonly employed method of checking alignment of a propeller after installation?

STRUCTURE AND RIGGING.³

3. (a) Name the kinds of wood most commonly used in aircraft construction, tell where each is used, and indicate the characteristics each type has that make it most suitable for the purpose employed. (b) Why are airplane spars (wood) laminated? What kind of glue is most commonly used? What precautions must be observed to insure integrity of glued joints? (c) How are seams run in making up an airplane wing covering? Describe proper method of stitching wing covering to wing. Name kind of thread used, how spaced, and methods employed to prevent pulling stitches through fabric. (d) How are the bottoms of seaplane floats and flying-boat hulls built?

4. Given an F-5-L or H-S-2 airboat, or a C-class dirigible in crates for assembly: Describe how you would proceed to uncrate, assemble, and prepare

¹ Twelfth period.

² Covered by scope of examination (i).

³ Covered under scope of examination (f), (a).

for flight. You have all necessary equipment and personnel at hand. Include method of aligning, adjusting stagger, dihedral, etc., or inflation of gas bag, and method of inspection to make sure that all parts are properly assembled and safetied.¹

5. Prepare a single-seater chasse biplane, equipped with emergency flotation gear, for a flight from a turret platform. (a) Briefly describe platform and mounting of airplane. (b) Outline preparation of machine for flight, including flotation gear. (c) Inspection and test of plane, including power plant. (d) Give directions for maneuvering of ship on which plant is mounted. (e) How station crew? (f) Give word for release. (h) How handle machine until you are actually safely in the air?

GROUP N.² AERONAUTICS.

SERVICE OF INFORMATION.³

1. (a) As applied to surface fleets in action, what are the meanings of the following terms? (a) Line, (b) column, (c) distance, (d), interval, (e) counter-march, (f) line of bearing, (g) target angle, (h) column of divisions, (i) line of divisions. Illustrate with elementary sketches where applicable.

(b) You are on search patrol ahead of your own forces; visibility, 15 miles. You sight heavy smoke, presumably enemy main force. You are in radio communication with your own force commander. What information would you seek, how go about obtaining this information, and what messages would you transmit to your own force commander?

(c) Make silhouette sketches of the following types of vessels: (a) Battleship or battle cruiser, (b) destroyer, (c) airplane carrier, (d) scout cruiser, (e) collier, (f) submarine.

(d) What is a scouting line? Scouting bearing? Scouting interval? Scouting distance? You have sighted an enemy main force. What points, as regards disposition and movements, might enable you to distinguish between battleships and battle cruisers?

TYPES AND USES.⁴

2. (a) Discuss the use of the airship in naval warfare, stating for what kinds of service it is best adapted, and indicating the reasons, if any, why it is superior to heavier-than-air craft for these particular kinds of service.

(b) Tabulate the general classes of aircraft which should be placed at the disposal of a well-rounded fleet, and the uses for which each class is best adapted.

(c) What special features should be incorporated in the design of a photographic plane?

(d) What features are necessary in a good pursuit plane (single seater fighter)?

NAVIGATION.⁵

3. (a) Draw a squared chart, true north to be at the top, true east to be at right, 6 inches (up and down length) by 8 inches (right and left length), and draw a trace of your flight. The assumed scale is to represent 10 knots equals 1 inch. Assume wind to be 180° true; strength 22 knots; compass deviation, 3° west; variation, 6° east. Start from any point located in the upper left-hand corner square at 60-knots air speed and steer a course 135° true.

What (a) compass course, would you steer, and, at the end of the first hour from departure, (b) how far from and what was your (c) magnetic bearing from point of departure?

(b) Explain the land and sea breezes.

(d) Explain why rough air is usually encountered over a large city.

(d) Returning from flight at sea (either airplane or dirigible), you encounter a moderately heavy low-lying fog. How would you maneuver in such circum-

¹ Answers to apply to one only of the three types mentioned.

² Thirteenth period.

³ Covered under scope of examinations (m), (l), and (o).

⁴ Covered under scope of examination (i).

⁵ Covered under scope of examination (a).

stance? Would you stay close to the water or climb above the fog? Give reasons.

(e) What conditions are usually found in the vicinity of thunderstorms? What instructions would you give to a student pilot making his first oversea "navigation flight" relative to maneuvers in case he encounters a thunderstorm?

LIGHTER-THAN-AIR CRAFT.¹

4. (a) What in general is helium? From what source is it obtained? As applied to airship use, how does it compare with hydrogen?

(b) What effect do the following have on a free balloon in flight: (1) Passing under a cloud, (2) ascending through a cloud, (3) passing from daylight to dark, (4) passing from dark to daylight.

(c) How is altitude controlled in a modern dirigible? What is a balloonet and what is its principle of operation? How is a nonrigid airship equipped to prevent cupping at the nose?

(d) What are the essential differences between the rigid, semirigid, and non-rigid airship? Outline fire precautions to be observed in an airship hangar.

AIRCRAFT GUNNERY.²

5. (a) Describe the Mark III pilot directing bomb sight.

(b) State precautions to be observed before, during, and after flight in aircraft carrying both bombs and machine guns to prevent accident and to insure proper functioning of ordnance equipment.

(c) Describe in general terms all the types of ammunition used in aircraft in our service.

(d) Name all the factors of incorrect sight setting or flying that will cause an overshoot in bombing. What two conditions must be fulfilled to hit a target in bombing?

Senator WALSH. Let me have one of them, please.

Admiral BRYAN. Yes, sir. I can let you have that copy [indicating], but I would like to submit another for the record.

Senator WALSH. You will supply for the record, Admiral, a complete list of the subjects and the questions?

Admiral BRYAN. Yes, sir. That is all there, Senator.

Senator WALSH. They are all here, and you have made some notes of your own about each question?

Admiral BRYAN. Yes, sir.

Senator WALSH. I imagine these notes are to indicate the kind of answer that would help you—

Admiral BRYAN. No, sir. Those indicate whether that question was covered or not by the circular of the Bureau of Navigation. I have the same notes in typewriting. These are in my handwriting.

Senator WALSH. I will read a sample question, Mr. Chairman, in seamanship. What does O. O. D. mean—"officer of the day," I presume.

Admiral BRYAN. Yes, sir.

Senator WALSH (reading):

"2. As O. O. D. of a battleship under way, you note that something is wrong with the steering gear of a vessel you were about to pass to starboard on an opposite course, and you decide that collision with her is imminent. What commands would you give to wheel and engines and what would you do? What, in general, would the various divisions of the crew do?"

"3. Describe the docking of any third-rate ship (lines used, how to handle ship, etc.) and the duties of the executive officer while in dock for the care and preservation of the ship. Select ship and dock and show by diagrams.

"4. Turn a single right-hand ship in a small space. Wind blowing in and tide setting out. Make a sketch.

"5. (1) You are officer of the deck of a battleship in formation (fleet or squadron). Discuss relieving deck, keeping position in column, in line, and on line of bearing.

"(2) What do man overboard"—

Admiral BRYAN. That means what to do in case of a man overboard.

¹ Covered under the scope of examinations (d), (e), (g), and (k).

² Covered under scope of examination (p).

Senator WALSH (reading):

"What do man overboard in vessel ahead of you and you are fourth in column, by day and by night?"

"(3) What do if man fell overboard from your own ship, you being third in column?"

"6. Unmoor ship, with swivel, anchor on each bow, 45 fathoms of chain. You are first lieutenant in charge of the fore-castle."

Captain WILLIAMS. May I interrupt?

Senator WALSH. Yes.

Captain WILLIAMS. Were any of those questions that the Senator has just read of the sample questions issued by the Bureau of Navigation?

Admiral BRYAN. Yes, sir. I estimate that 80 per cent of the examination was specifically covered by the circular sent out by the Bureau of Navigation, and it was really entirely covered, because these questions are only stated as being sample questions similar to what would be asked.

Senator WALSH. Let me see that circular.

Senator KEYES. You are not contending, are you, Senator, that those are unfair questions in seamanship?

Senator WALSH. Not at all.

Senator KEYES. And not the knowledge a man ought to have as a line officer?

Senator WALSH. Not at all. Admiral, will you point out to me, so that I may read it, the part of the circular that contains these questions. I am contending, though, Senator, that if I was given some sample questions for an examination they are the last ones I would look up on that subject expecting to find them on the examination paper.

Admiral BRYAN. "The examination will be written, the questions being of the following general character and scope." There it is.

The CHAIRMAN. Senator, it seems to me there are two main issues involved here, and let us devote as much of our time to answering those as possible. One is, and probably the most important, that the Government needs aviators in the Navy; that it is rather expensive to train them; we had a lot of well-trained men in the Navy. Those men failed in the examination. The question is as to whether they had a proper opportunity to prepare for that examination. Those are really, in my judgment, the issues that are to be resolved. If you do not agree with me—

Senator WALSH. I do agree with you.

Senator KEYES. This is not an examination for aviators.

Captain WILLIAMS. I think the best contribution that Admiral Bryan can give to clearing up the situation is to let him tell all he knows about the character of the examination, what it was for, and what he thinks. Let us have his opinion of the conditions.

Senator WALSH. There is another factor that I take into consideration. I take into consideration the fact that these young men went through a war for their country; that they gave up their life careers for aviation service; that they spent five years in it, and that during four of those five years there was an implied promise and assurance from their superiors if they made good in aviation and had good records and were promoted, as they were, they would have a career in the Regular Navy; that it was not until the last few months of last year that an awakening came to them that they would have to be line officers as well as aviators. All that is a terrible hardship that we ought to consider.

The CHAIRMAN. You must remember, in that connection, Senator, that these men were taking an examination for line officers, responsible for the ships, for the lives not only of other men of those ships, which probably would be at stake, but the success of the Navy in action. The future of our Navy depends upon that.

I do not think that question comes in so seriously. Of course, it is a sentimental question and probably ought to be considered somewhat; but from a naval standpoint you must make your Navy efficient. To be efficient you must have the line officers efficient, and these men ought to pass the examination for line officers.

The main question, in my judgment, is the preparation given them—the opportunity they had. If they were at work and were not given opportunity to prepare for it, then, they are suffering a hardship.

Senator WALSH. I want to inform myself, if I may, upon whether the syllabus that was sent out gave these questions or not.

Captain WILLIAMS. Admiral Bryan, are they identical with those asked?

Admiral BRYAN. Yes, sir.

Senator WALSH. You heard me read the questions on seamanship?

Admiral BRYAN. Yes, sir.

Senator WALSH. I am going to give you the types that were set forth here that these men say were the identical questions that I read, or 80 per cent of them. [Reading:]

"Seamanship:

"(1) Types of boats in Navy and their equipment.

"(2) Handling of boats under oars and sail.

"(3) Boat salutes.

"(4) Hoisting boats.

"(5) Men overboard—lowering and handling of lifeboats.

"(6) Ground tackle—how cared for—how is chain marked?

"(7) Ship's log—what entries are made therein?

"(8) Duties of officers of deck."

Admiral BRYAN. That covers the first question you asked.

Senator WALSH [reading]:

"(9) Etiquette of side.

"(10) Routine ceremonies (colors, etc.).

"(11) What orders are given to steersman and how?"

Have I read all the sample questions on seamanship that were sent out to those young men?

Admiral BRYAN. No, sir.

Senator WALSH. I have not read them all?

Admiral BRYAN. No, sir.

Senator WALSH. Where are the others?

Admiral BRYAN. Under junior lieutenants and lieutenants, farther down.

The CHAIRMAN. I suggest a copy of the sample questions be put in the record and one copy of the examination questions.

Admiral BRYAN. The copy of the examination questions we are using here has my notes under each question, in my own handwriting, as to how it is covered by the sample questions and by the circular. The copy to be supplied for the record will contain those notes in typewriting. Of course, they did not give the sample questions. In the case of regulations, for instance, they said that certain chapters of the regulations would be required. They were supposed to read up on that chapter of the regulations, and those chapters in the regulations that were required covered every question that was asked.

Senator WALSH. I want to finish up this one subject, because I have received from you the impression—although I may be mistaken about it—that a similar form of examination questions were sent out in the syllabus with the examination itself. I have read now all that was said in the syllabus, and I will read what is said under seamanship, lieutenant, junior grade, same as for ensign, and in addition:

"(1) Getting under way and coming to anchor, general description of.

"(2) What signal systems are used in the Navy?"

Is that correct?

Admiral BRYAN. Yes, sir.

Senator WALSH. Do you say that that syllabus contained the same type, or 80 per cent of the questions, that were in the examination paper I read?

Admiral BRYAN. Yes, sir.

Senator WALSH. What you mean is that hints were given in the syllabus of the general subject matter, such as the man overboard, and not the question itself?

Admiral BRYAN. That is not what I mean at all. I mean those questions were similar to or were otherwise covered by what was in that syllabus.

Senator WALSH. And you say to this committee, to the Senators here who are present, that the syllabus that I read now on seamanship is the same as the examination questions that I read on seamanship?

Admiral BRYAN. No, sir; I do not say that. I say that it covers these questions.

Senator WALSH. Exactly. In other words, you gave the head topics of a subject under which a question was asked in the examination?

Admiral BRYAN. Yes, sir.

Senator WALSH. Have you not been giving the impression to me—perhaps you have not, but I have been getting the impression—that the same sample question was written down as the question these men would receive, when that is not the case at all?

Admiral BRYAN. Some are the same.

Senator WALSH. Will you find me one question the whole form of which is the same under seamanship? I had supposed that 8 out of 10 of these questions that were given to these boys, they were told months beforehand were the questions which would be asked.

Admiral BRYAN. That is what you have there.

Senator WALSH. Are they not simply subtopics?

Admiral BRYAN. But many of them are the same. Take question 4, "Turn a single right-hand ship in a small space. Wind blowing in and tide setting out. Make a sketch." This is completely covered by sample question 4 in seamanship for lieutenant, junior grade, "Turn right-handed single-screw steamer in limited space"—exactly the same question.

Senator WALSH. That is your note, of course, down there?

Admiral BRYAN. Yes.

Senator WALSH. So you say that question you read means the same thing as "Turn right-handed single-screw steamer in limited space"?

Admiral BRYAN. Yes, sir.

Senator WALSH. Will you read the actual question there?

Admiral BRYAN (reading):

"Turn a single right-hand ship in a small space. Wind blowing in and tide setting out."

Those are the conditions.

Senator WALSH. There is nothing about wind blowing and tide setting in here.

Admiral BRYAN. No; but they are expected to do it under any conditions at all, the conditions to be set.

Senator WALSH. You gave them the general subject matter and they would have to know all the details under it, but the questions never went to the same detail under the general subject.

Admiral BRYAN. I think that covers that very well, sir.

Senator WALSH. Proceed, Admiral, with the examination questions.

The CHAIRMAN. Those questions were trial questions, and the examination questions will be part of the record, and the committee will consider them carefully.

Captain WILLIAMS. Will you please describe the character and object of this examination?

Admiral BRYAN. The object of the examination was to ascertain——

Captain WILLIAMS. One second. The character and object to the people who took part in this examination.

Admiral BRYAN. The object was to ascertain the qualifications of the temporary and reserve officers who were eligible for transfer to permanent position in the line, ascertain their qualifications for those permanent positions in the line, which were positions of lieutenant, lieutenant, junior grade, and ensign.

The character of the examination was, I think, somewhat easier than the usual one for promotion to those positions, except the subject of aeronautics, which we did not know. I know I picked out what I thought were very easy questions in my subjects, as did the others. There was no inclination to make them any harder. In fact, the attitude of the board was very, very lenient toward these officers. We felt we needed them, and we did our very best to get everybody in.

From our records I think you gentlemen will all admit, when you go over them, that everyone was taken in that the record showed service could be made of. Of course, when a man failed in over half the subjects you could not expect him to make up what you call in college those "conditions" in the little time he would have before his next examination. But we did our very best, thinking it was the object of the law and the intention of the department to take in all the material that we thought possible could be made of use in those positions.

The CHAIRMAN. Admiral, did you mark your part of the examination?

Admiral BRYAN. Senator, they were marked by younger officers. I could not have done it with those 2,000 examinations. To have marked those examinations would have taken me five or six months.

The CHAIRMAN. Was any credit given, do you know, to the record, the service record, of the men?

Admiral BRYAN. Oh, yes; yes, sir. That counted more weight than any other subject. The highest any subject outside of the record counted was 100. The record counted 300.

Senator WALSH. What was the total amount that a man could receive?

Admiral BRYAN. There were 10 subjects, some of which counted 100 and some 50. The total was 1,100.

Senator WALSH. Will you give the individual subjects and what each counted?

Admiral BRYAN. The record counted 300; regulations, 50; navigation, 100; seamanship, 100; ordnance and gunnery, 100; engineering, 100; electricity, 50; military law, 50; international law, 50; aeronautics, 100; and general education, 100. That is 1,100.

The CHAIRMAN. So that experience and the record would count more than a fourth?

Admiral BRYAN. There were only 10 of those subjects required, so it would be a thousand if a subject counting a hundred was left out.

The CHAIRMAN. Almost a third, then.

Admiral BRYAN. Yes, sir; that counted nearly a third.

Captain WILLIAMS. Will you proceed, Admiral, and tell us what classes of officers took this examination?

Admiral BRYAN. All the temporary officers—of course, that included the enlisted men who were temporary officers, and the Naval Reserve officers, the Naval Reserve Flying Corps officers—that made request for the examination. That was the only requirement.

Captain WILLIAMS. Will you please give their specialties, if they had any?

Admiral BRYAN. There were quite a number of specialties. Of course, there were gunners, electric; gunners, radio, and various kinds of gunners—gunners, ordnance. There were machinists, engineering branch; there were outside engineers from the Coast Guard and from the reserves.

Captain WILLIAMS. Engineers from the Coast Guard and from the reserve?

Admiral BRYAN. Yes; there were also the aviators. They were specialists, too.

Captain WILLIAMS. Did the engineers from the Coast Guard and the reserves have an examination in seamanship and navigation?

Admiral BRYAN. Oh, yes; they all had the same examination. They left out what they chose. They would probably leave out aviation. In fact, a good many of the aviators left that out; but they had the privilege of leaving that out. They were to my mind just as much specialists as aviators. They had the same questions.

The CHAIRMAN. There were certain things that counted only 50 instead of 100?

Admiral BRYAN. Yes, sir.

The CHAIRMAN. Would they be permitted to eliminate two of those examinations counting 50 each?

Admiral BRYAN. No, sir. It was specifically stated what they could eliminate.

Captain WILLIAMS. What classes of these officers you have testified were radio gunners, electrical gunners, engineers of the Coast Guard and reserves, and others, had any optional examination?

Admiral BRYAN. They all had it.

Captain WILLIAMS. What was it?

Admiral BRYAN. If an engineer took aviation he could leave out seamanship, or ordnance, or gunnery.

The CHAIRMAN. They had to leave out something of the same mark?

Admiral BRYAN. Yes, sir.

Captain WILLIAMS. Did the radio gunner have an optional examination in radio?

Admiral BRYAN. No; he had to take electricity. He was not examined in radio any more than the radio questions that were in the electrical examination.

Captain WILLIAMS. Will you give the numerical data as to how many officers took this examination, how many passed, the different classes that took them, with special reference to the number of aviators who passed this examination?

Admiral BRYAN. You want the aviators?

Captain WILLIAMS. I want all hands, if you have them. I think you probably have them. I think you have the report of the board containing it.

Admiral BRYAN. The number who took the examination was 1,651. The number that failed to finish was 21, leaving the number 1,630 that were considered for promotion.

Senator WALSH. How many of those 1,630 passed?

Admiral BRYAN. Recommended for commission, I think there were 931, recommended for warrant grade 370; not recommended 329. There were 57.1 per cent recommended for commission, 22.7 per cent recommended for chief warrant grade, and 20.2 per cent that were not recommended.

Captain WILLIAMS. How many reserve aviators took this examination?

Admiral BRYAN. There were 246.

Captain WILLIAMS. How many got a commission or warrant?

Admiral BRYAN. I do not know; I have forgotten. I have not quite gotten this complete. We found there was a mistake of two men there. There were 246 of the Reserve Flying Corps that took the examination, and there were 85 who were not recommended. The others were recommended for various grades. Some of them were recommended for Grade 5, and others below that. I have been working this out, but I did not quite get it finished before I was called up here.

It is a very difficult and tedious job to go over these. Of course, you have nearly 2,000 people. They are all filed together, and you have got to go over and pick them out.

Captain WILLIAMS. Of the 246 reserve aviators who took the examination 161 were recommended for either a commission or a warrant?

Admiral BRYAN. Yes, sir; if that is the figure made by subtracting 85 from 246.

Captain WILLIAMS. How many subjects were there in this examination as taken by the reserve aviators?

Admiral BRYAN. There were 10 required.

Captain WILLIAMS. Suppose a man failed in one subject, in two subjects, in three subjects, in four subjects, in five subjects, in six subjects, and so on; would you tell us your procedure and where you drew the line?

Admiral BRYAN. Yes, sir. When we went over this examination first our instructions from the Bureau of Navigation were to pass those that had satisfactory marks in all subjects. We found that there were, I think, about 23 of these that had satisfactory marks in all subjects.

Senator WALSH. Twenty-seven of the aviators?

Admiral BRYAN. Of the Reserve Flying Corps.

Senator WALSH. How many of the entire number, of the 1,630?

Admiral BRYAN. I do not know, sir.

Senator WALSH. Is it between 90 and 100?

Admiral BRYAN. I have not the slightest idea.

Senator WALSH. That is a request I have made since the beginning of this hearing.

Admiral BRYAN. I have not had any such request made.

Senator WALSH. I have never had such an experience in getting information from a department of the Government as I have had here.

Admiral BRYAN. You can get all that. I am perfectly willing to inform you. I have it here for your aviators, and I thought that was all you wanted to know. That was the request made to me. I shall be very glad to get it out for you, sir.

Temporary and Reserve Corps officers other than Class 5 who have made satisfactory marks in all subjects on the May 16, 1921, examinations for transfer to the permanent Navy.

	Rank.	
	Temporary.	Permanent.
Lieutenants (38):		
Allen, J. L.	Lieutenant.....	Gunner (R.).
Arps, M. W.	do.....	Do.
Bettens, J. W.	do.....	Chief boatswain (A.).
Birk, J. W.	do.....	Chief gunner.
Butler, O. D.	do.....	Ensign.
Campbell, C. W.	do.....	Chief gunner.
Clough, H. A.	do.....	Boatswain.
Damon, M.	do.....	Gunner.
Dorsey, A. B.	do.....	Chief gunner.
Earle, O. B.	do.....	Gunner (E.).
Eldridge, A.	do.....	Do.
Erwin, M. C.	do.....	Enlisted (N. L.).
Fisher, E.	do.....	Gunner.
Gundlach, P. J.	do.....	Gunner (E.).
Harvey, L. M.	do.....	Enlisted (N. L.).
Hayes, H. R.	do.....	Gunner (R.).
Irwin, H. L.	Lieutenant U. S. Naval Reserve Force (1).	None.
Kuter, P. E.	Lieutenant.....	Gunner (E.).
Langfield, A.	do.....	Chief gunner.
Leonard, A. C.	do.....	Gunner (E.).
Loftus, S. A.	do.....	Do.
Lovelace, C. E.	do.....	Do.

Temporary and Reserve Corps officers other than Class 5 who have made satisfactory marks in all subjects on the May 16, 1921, examinations for transfer to the permanent Navy—Continued.

	Rank.	
	Temporary.	Permanent.
Lieutenants—Continued.		
McKenna, J. L.	Lieutenant	Chief gunner.
Murphy, J. F.	do.	Gunner (E.).
Nichols, C. L.	do.	None.
Pratska, A.	do.	Chief gunner.
Ramsdell, C. R.	Lieutenant U. S. Naval Reserve Force (3).	None.
Rockwell, C. R.	Lieutenant.	Gunner (R.).
Ruf, F. A.	do.	Enlisted (N. L.).
Tanske, G. C.	do.	Chief gunner.
Thompson, H. L.	do.	Enlisted (N. L.).
Thomson, Q. R.	do.	Ensign.
Turner, H. A.	do.	Gunner.
Walker, R. A.	do.	Chief gunner.
Webb, L. D.	do.	Gunner (E.).
Whalen, J.	do.	Boatswain.
Williams, R. O.	do.	Chief gunner.
Wurstor, E. C.	do.	Do.
Lieutenants (junior grade) (31):		
Arnold, H. L.	Lieutenant (junior grade) (T.).	None.
Bartlett, A. E.	do.	Do.
Brandecker, F. A.	Lieutenant (junior grade).	Enlisted (N. L.).
Brewington, O. L.	do.	Do.
Briggs, O. H.	do.	Do.
Daniels, R. E.	do.	None.
Deewall, R. G.	do.	Enlisted (N. L.).
Dingwell, J. E.	do.	None.
Farnsworth, R. E.	do.	Do.
Flanagan, H. C.	do.	Do.
Foltz, A. F.	do.	Do.
Drishan, C. F.	do.	Enlisted (N. L.).
Hardesty, F. A.	do.	None.
Hartenstein, W.	do.	Enlisted (N. L.).
Johnson, C. M.	do.	Do.
Kennedy, F. E.	do.	None.
Lobaugh, W. B.	do.	Do.
Lockart, R. N.	do.	Enlisted (N. L.).
Lund, P. M.	do.	Do.
MacNally, R. F.	do.	None.
Newton, H. F.	do.	Enlisted (N. L.).
Ogden, S. B.	do.	None.
Rorer, W. Y.	do.	Enlisted (N. L.).
Roseman, W. F.	do.	Do.
Seely, C. S.	do.	None.
Stadtler, S. B.	do.	Enlisted (N. L.).
Thomas, J. N.	do.	Do.
Tichenor, L. S.	do.	Do.
Tobin, J.	do.	None.
Trautman, D. L.	do.	Do.
Waite, L. L.	do.	Gunner (E.).
Ensigns (17):		
Alden, H. W.	Ensign.	None.
Bennett, L.	do.	Do.
Benwell, L. J.	do.	Do.
Birdsall, G. D.	do.	Do.
Cheever, S. C.	do.	Do.
Coleman, W. B.	do.	Do.
Eisenhardt, N. H.	do.	Do.
Fernald, J. M.	do.	Do.
Foskett, J. H.	do.	Do.
Fried, S. S.	do.	Do.
Gregory, S.	do.	Gunner (O.).
Herty, H. B.	do.	Do.
McCarthy, J. O. C.	do.	Do.
Richardson, M. J.	do.	Do.
Rumble, C. A.	do.	Do.
Thornton, W. N.	do.	Do.
Wolter, B. H.	do.	Do.
Lieutenants.		38
Lieutenants (junior grade).		31
Ensigns.		17

Total temporaries and reserve force, other than class 5, who made satisfactory marks in all subjects. 86

We found that there were so few of these men that got satisfactory in all subjects—and I have to call attention here to the fact that the board was the determining factor in regard to the recommendations for these officers outside of the Secretary of the Navy, who was the representative of the President—they had to prove their fitness to the satisfaction of the board. We therefore decided—we found there were a good many of them that were unsatisfactory in one subject, one minor subject, and we thought that could be made up. We found that there were not so very many of these. So we went on and decided that an unsatisfactory mark in one major subject would still make them satisfactory, and we went on further to a minor and a major, and so on.

Here are our rules. I would like to file a copy with the committee, and I will read them to you.

Senator WALSH. They have already been put in the record.

Admiral BRYAN. The result was that we recommended—I am referring now simply to aviators, because I do not think we were quite as lenient perhaps with the others—we recommended everyone whose examination showed we thought that they would be of use to the service, that they could be fitted in. That is, there were none, as I recollect, not recommended for any position who failed in less than five subjects.

Captain WILLIAMS. Who failed in less than five?

Admiral BRYAN. And that is half the number of subjects, or whose record was not good. I think there were some four or six who failed in a less number of subjects, but there was something wrong with their records, and the main board, which consisted of Admiral Wood and myself and Captain McNeely, spent 20 days going over these marks and picking these out. We did it conscientiously, we did it leniently, and if there was anything the matter with a man's record, if he had not a good record, we had his record brought down and went over it and decided ourselves, because in some of these rules the record was the determining factor. The record board gave him a low mark, we will say. Well, we would have that record brought down and we would all go over it, and we would remark that record ourselves.

I think the examination was perfectly fair as it was conducted, and I do not think you can prove in any way that it was not fair. Especially you can not prove that there was any animus or any inclination to make it unfair, or any reason to make it unfair.

Captain WILLIAMS. Eighty-five of these reserve aviators failed either on their record or on at least 5 subjects out of 10?

Admiral BRYAN. Yes, sir.

Captain WILLIAMS. Can you give to the committee a list of those who failed, together with a list of the subjects in which they failed?

Admiral BRYAN. Yes, sir; I can; there it is.

The CHAIRMAN. Senator, is it desired that that be read or merely put in the record?

Senator WALSH. I think it might be put in the record. We have no objection to it going in the record. These young men are not ashamed to fail in an examination on subjects in which they had been given no instruction, or but a few hours of instructions. It is nothing to their discredit.

Admiral BRYAN. I would like the committee to examine those. The plus (+) mark shows the subject in which they failed. A minus (−) mark is the subject they omitted.

The CHAIRMAN. If there is no mark in the space, that is an indication of the fact they passed in that subject.

Admiral BRYAN. Yes, sir.

The CHAIRMAN. We are going to ask that this be filed in the record.

(The records referred to are here printed in full as follows:)

United States Naval Reserve Force, Class 5.—Officers who failed on the examination of May 16, 1921, to qualify for permanent appointment in the United States Navy, with the subjects in which each officer failed.

[Those marked plus (+) being the subjects in which the respective officer failed in. All officers were permitted to omit one subject, to be chosen by him; the minus (−) mark indicates the subject which was omitted in each case.]

	Rec- ord.	Navy regu- la- tions.	Nav- iga- tion.	Sea- man ship.	Or- d- nance and gun- nery.	Engi- neer- ing.	Elec- tric- ity.	Mili- tary law.	Inter- na- tional law.	Aero- nau- tics.	Gen- eral edu- ca- tion.
LIEUTENANTS, UNITED STATES NAVAL RESERVE FORCE, CLASS 5.											
Bates, C. A.		+	−	+	+	+	+			+	
Bertoneire, G. U.				+	+	+	+			+	
Beswick, H. A.		+	+	+	−	+	+	+			+
Bottoms, R. R.		+	+	+	+	+	+			+	
Bouldin, W.		+	−	+	+	+	+			+	
Bradford, S. N.		+	−	+	+	+	+			+	
Brennan, E. P.		+	−	+	+	+	+	+	+	+	
Brewer, A. D.		+	+	+	−	+	+				
Bryan, W. C.			+	+	+	−	+	+			+
Burk, F. L.		+	+	+	+	+	+				+
Carpenter, G. H.		+	+		−	+	+	+	+	+	
Chapman, T. H.			−	+	+	+	+				
Craighton, B. H.			−	+	+	+	+		+		
Cromwell, A. C.			−	+	+	+		+			
Driscoll, A. D.			−	+	+	+	+				
Duncan, C. G.				+	+	+		+	+		
Eaton, J. A.			+							−	
Elward, A. H.				+	+	+					
Evans, A. W.			+		−	+	+				+
Fuller, E. J.			+		+			+			
Gage, F. H.			+		+	+				−	
Gillispie, P. E.			−								+
Green, J. E.						+					
Griffin, W. B.			+		+				+		
Hawland, W. B.											
Hawkins, J. H.											
Hively, R. D.											
Johnston, B. N.											
Kearney, P. E.											
Kenny, C. J.											
Kirk, L. F.											
Lange, K. L.											
Laverents, L.											
Leggatt, H. B.											
Letzkus, E. A.											
Linkins, H. U.											
Marbury, L.											
Matteson, G. C.											
McDermott, M. J.											
Miller, W. T.											
Mitchell, H. L.											
Noble, L. F.											
Parent, J. H.											
Parker, E. H.											
Pond, G. R.											
Porter, W. L.											
Prell, A. O.											
Quinn, J. J.											
Reed, H. A.											
Reed, W. F. jr.											
Roughley, H. W.											
Rowe, C. A.											
Rummill, G. E.											
Selden, H. F.											
Sewell, A. T.											
Spaulding, I. D.											
Stiles, H. R.											
Thorburn, H. H.											
Worthington, J. P.											
Young, K. L.											

United States Naval Reserve Force, Class 5.—Officers who failed on the examination of May 16, 1921, to qualify for permanent appointment in the United States Navy, with the subjects in which each officer failed—Continued.

	Rec- ord.	Navy regu- la- tions.	Nav- iga- tion.	Sea- man- ship.	Ord- nance and gun- nery.	Engi- neer- ing.	Elec- tric- ity.	Mili- tary law.	Inter- na- tional law.	Aero- nau- tics.	Gen- eral edu- ca- tion.
LIEUTENANTS (JUNIOR GRADE), UNITED STATES NAVAL RE- SERVE FORCE, CLASS 5.											
Arthur, R. W.			—	+	+	+	+	+		+	
Butler, M.		+		+							
Cushman, A. A.		+	+	+	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Davison, R. L.		+		+	+	+	+			+	
Desonier, L. A.		+	+		+	+	+	+	+	+	+
Fitzgerald, G. R.		+		+	+	+	+		+		
Galloupe, C. A.	+	+	—	+	+	+	+	+	+	+	
Green, G. B. L.		+	—	+	+	+	+	+	+	+	
Kittredge, L. T.	+	+	—	+	+		+	+	+	+	
Lucas, H. W.		+	—	+	+	+	+	+	+	+	
Reisch, H. P.	+	+	—	+	+	+	+	+	+	+	
Rodenbath, E. S.		+	—	+		+	+				
Shields, W. L.		+	—	+	+	+	+	+		+	
Tilton, A. G.	+	+	—	+	+	+	+			+	
Williams, M. E.		+	—	+	+	+	+	+	+	+	
Taylor, A. G.		+	—	+	+	+	+	+	+	+	
Wilson, L. S.		+	—	+	+	+	+	+	+	+	
ENSIGNS, UNITED STATES NAVAL RESERVE FORCE, CLASS 5.											
Cassidy, W. P.	+	+	+	+	+	+				—	
Cline, J. C.	+	+	—	+	+	+	+	+	+	+	+
Karr, H. H.		+	—		+	+	+	+			
Kelly, S. F.	+		—	+	+	+	+				
Parker, A. N.	+		—		+	+	+	+		+	
Perkins, A. M.		+	+	+	+	+	+	+	+	+	
Robinson, J. S.	+	+	—	+	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Waugh, R. S.		+	—	+	+	+	+	+	+	+	+

¹ No other papers received. Evidently did not complete examination.

SUMMARY.

Lieutenants, United States Naval Reserve Force, Class 5.	60
Lieutenants (junior grade), United States Naval Reserve Force, Class 5.	17
Ensigns, United States Naval Reserve Force, Class 5.	8

Total United States Naval Reserve Force, Class 5, officers who failed to pass examinations. 85

NOTE.—A count of the cards shows the following:

Total United States Naval Reserve Force, Class 5, officers who reported for examination.	246
Recommended for commission.	152
Recommended for warrant grades.	9

Total who passed examinations. 161

Total who failed to pass. 85

Senator WALSH. I have asked for the names of each of these 85 men that failed, with their record marks. Is that information here?

Admiral BRYAN. No, sir. I have never had that request. This covers only class 5.

Senator WALSH. Will you get that for me?

Captain WILLIAMS. I did not understand you wanted that. I will get it.

Senator WALSH. One of the first things I asked for, and have from the very beginning, is the record marking of these 85 men that failed.

Captain WILLIAMS. It was not my understanding you wanted the records.

Senator WALSH. I want the marks that this board gave them.

Captain WILLIAMS. That will be obtained. It is my understanding now you are asking for the records themselves, which also will be submitted to the committee.

Senator WALSH. Of these 85 men.

Captain WILLIAMS. The original records of the 85 men, which will be submitted to the committee, and the marks attached thereto.

Senator WALSH. The mark of the examining board made against the record of these men.

Admiral BRYAN. Senator, I would like to have that very clear.

Senator WALSH. Did you make a separate mark—

Admiral BRYAN. Will you let me ask you? I do not understand when you say their record whether you mean their marking in every subject or just fitness reports.

Senator WALSH. Their fitness reports.

Admiral BRYAN. That is very easy.

Admiral BRYAN. Yes; that he had a good fitness record.

Senator WALSH. And you would mark such a man pretty near the 300 point?

Admiral BRYAN. Pretty near, I think, probably.

Senator WALSH. D'd you make an average of how the man stood on all these subjects, or did you find out how many subjects he passed in only?

Admiral BRYAN. We made an average.

Senator WALSH. So that each man was given so many points on seamanship?

Admiral BRYAN. Yes, sir.

Senator WALSH. So many points on navigation?

Admiral BRYAN. Yes, sir.

Senator WALSH. So many points on aviation, so many points on general education, so many points on his fitness report?

Admiral BRYAN. Yes, sir.

Senator WALSH. Those were all added together to find out how near he was to the maximum number of points, namely, 1,100?

Admiral BRYAN. Yes, sir.

Record marks of officers, United States Naval Reserve Force, class 5.

[The records of officers marked "*" were reexamined by board and they were given a satisfactory mark in grades for which recommended.]

Lieutenants:	Mark.	Lieutenants—Continued.	Mark.
Anderson, J. B.-----	3.50	Gavin, A.-----	3.60
Avery, L. C.-----	3.60	Gorton, A. W.-----	3.50
Auerswald, R. R.-----	3.50	Gray, T. A.-----	3.40
Bauch, C. E.-----	3.30	Grooch, W. S.-----	3.60
Becker, F. H.-----	3.50	Henderson, G. R.-----	3.70
Blackwell, W. E.-----	3.40	Hewitt, L.-----	3.60
Blasiar, A. F.-----	3.60	Houghton, A. R.-----	3.60
Barkeley, E. H.-----	3.50	Hudson, A. W.-----	3.30
Botta, Rico.-----	3.60	Hundt, L. T.-----	3.60
Brow, H. J.-----	3.40	Hutchinson, L. B.-----	3.30
Burke, C. B.-----	3.50	Irvine, R.-----	3.50
Cahill, G. A., jr.-----	3.50	Iseman, J. W.-----	3.00
Cannon, G. C.-----	3.60	Keddie, E. A.-----	3.40
Carter, P. W.-----	3.50	Keene, C.-----	3.60
Chourre, E.-----	3.50	Kindell, N. M.-----	3.50
Coatsworth, C. J., jr.-----	3.40	Lawrence, J. B.-----	3.50
Colston, T. M., jr.-----	3.40	Little, C. G.-----	3.70
Compo, G. L.-----	3.70	Lonnquest, T. C.-----	3.30
Conley, D. L.-----	3.50	Lyon, R. F.-----	3.50
Connell, B. J.-----	3.40	Lyon, R. D.-----	3.50
Crinkley, A.-----	3.50	MacDonald, G. G.-----	3.50
Darby, A. M.-----	3.30	McConnell, R. P.-----	3.50
Dickey, F. C.-----	3.40	McDonnell, F. R.-----	3.60
Dolecek, E. E.-----	3.40	McMurrain, S. B.-----	3.60
Dowell, B. B.-----	3.20	Miller, G. C.-----	3.40
Durfee, Thos.-----	*0.00	Murphy, J. L.-----	3.50
Eddy, M. F.-----	*2.00	Naugle, P. D.-----	3.50
Elllott, H. A.-----	3.50	Norris, R. H.-----	3.30
Estabrook, F. T.-----	3.60	Null, T. B.-----	3.40
Esterly, M. H.-----	3.50	Ostin, O. L.-----	3.50
Evans, R. P.-----	3.50	Ott, G. A.-----	3.50
Fake, F. C.-----	3.30	Owen, G. T.-----	3.40
Fellers, W. M.-----	3.60	Palmer, C. D.-----	3.50
Fry, S. B.-----	3.60	Patterson, W. K.-----	3.50
Fuller, R. L.-----	3.50	Peterson, W. L.-----	3.40

Lieutenants—Continued.	Mark.
Pope, L. A.-----	3.60
Pride, A. M.-----	3.40
Reichelderfer, F. W.-----	3.40
Renaker, T. E.-----	3.10
Rhodes, B.-----	3.60
Rittenhouse, D.-----	3.50
Rodd, H. C.-----	3.50
Roe, G. T.-----	3.40
Rohrbach, W. H.-----	3.00
Scott, C. A.-----	3.40
Sheehan, J. M.-----	3.60
Sheppard, E. W.-----	3.70
Shone, C. G.-----	3.60
Shumway, P. E.-----	3.20
Sinard, C. T.-----	3.60
Sloman, F. H.-----	3.50
Snody, A. P.-----	3.70
Stanley, H. T.-----	3.30
Stanley, J.-----	3.50
Stevens, J. H.-----	3.50
Stickley, W. E.-----	3.50
Taylor, R. S.-----	3.50
Thweatt, T. N.-----	3.30
Tyler, R. F.-----	3.50
Varini, G.-----	3.30
Walker, W. J.-----	*0.00
Warner, P. C.-----	3.30
West, H. E.-----	3.50
Williams, A. J., jr.-----	3.60
Williams, C. D., jr.-----	3.50
Wright, W. M.-----	3.50
Lieutenants (junior grade):	
Acker, S.-----	3.20
Adams, S.-----	3.20
Bark, E. B.-----	3.30
Beck, J. E.-----	3.30
Bowes, H. R.-----	3.20
Brooke, W. A.-----	2.90
Callaway, S. W.-----	3.00
Carlson, H. F.-----	3.20
Dupuy, A. E.-----	3.20
Dyer, J. E.-----	*2.00
Finch, V. C.-----	3.50
Francis, C. C.-----	*2.00
Guinn, T. D.-----	3.20
Gwin, W. B.-----	3.00
Harper, C. F.-----	3.10

Lieutenants—Continued.	Mark.
Harrell, R. H.-----	3.60
Hasselmann, G. H.-----	3.10
Hulse, J. H.-----	3.50
Lake, A. C.-----	3.20
Lee, T. B.-----	3.60
Lovelace, L. H.-----	2.90
MacCalman, D. J.-----	3.10
Marinelli, V. F.-----	3.20
McKellar, E. P.-----	2.80
McNulty, H. J.-----	*2.00
Merrill, R. H.-----	*2.00
Musk, D. A.-----	3.00
Pollard, R. V.-----	3.10
Richard, G. L.-----	3.10
Stephens, R. G.-----	3.20
Studley, B.-----	3.20
Tallman, T. A.-----	*2.00
Turner, G. B.-----	3.40
Whitaker, R. A.-----	3.10
Whitmore, F. R.-----	3.00
Wilkins, E. B.-----	3.30
Wood, W. P.-----	3.10
Ensigns:	
Allen, D. C.-----	3.20
Boyes, G. M.-----	3.00
Brown, L. W.-----	2.90
Carle, P.-----	2.80
Coles, W. M.-----	*2.30
Erdman, C. E.-----	2.70
Garnett, W. T.-----	2.70
Gurley, D. D.-----	2.90
Haynes, P. L.-----	2.50
Hollinsworth, W. B., jr.-----	3.10
Ketcham, J. B.-----	*0.00
Logan, D. N.-----	2.50
Meachen, H. F.-----	3.40
Ottoway, F. H.-----	*2.00
Pennington, J. A.-----	2.80
Perron, H. V.-----	2.90
Pixler, L. G.-----	2.70
Rasche, R. C.-----	2.60
Read, G. R.-----	*0.00
Richards, T. G.-----	3.10
Shafer, J. H.-----	3.00
Waller, R. E.-----	2.50
Waterman, F. B.-----	3.00

From here down are given the 85 officers who failed:

Lieutenants:	Mark.
Bates, C. A.-----	3.30
Bertoniere, G. U.-----	3.50
Beswick, H. A.-----	3.40
Bottoms, R. R.-----	1.00
Bouldin, Wm., 3d.-----	1.00
Bradford, S. N.-----	3.50
Brennan, E. P.-----	1.00
Brewer, A. D.-----	3.50
Bryan, W. C.-----	3.40
Burk, F. L.-----	3.50
Carpenter, G. H.-----	2.00
Chapman, T. H.-----	3.40
Creighton, B. H.-----	3.50
Cromwell, A. C.-----	3.50
Driscoll, A. D.-----	2.90
Duncan, C. G.-----	3.60

Lieutenants—Continued.	Mark.
Eaton, J. A.-----	3.50
Elward, A. H.-----	3.40
Evans, A. W.-----	3.40
Fuller, E. J.-----	2.50
Gage, F. H.-----	3.30
Gillespie, P. E.-----	3.60
Green, J. H.-----	3.50
Griffin, W. B.-----	0.00
Haviland, W. B.-----	3.80
Hawkins, J. H.-----	3.70
Hively, R. D.-----	3.50
Johnson, B. N.-----	3.50
Kearney, P. E.-----	3.50
Kenny, C. J.-----	3.40
Kirk, Le G. F.-----	3.50
Lange, K. L.-----	3.10

Lieutenants—Continued.

	Mark.
Laverents, A.-----	3. 60
Leggatt, H. B.-----	3. 10
Letzkus, E. A.-----	3. 60
Linkins, H. U.-----	0. 00
Marbury, L.-----	3. 50
Matteson, G. C.-----	3. 20
McDermott, M. J.-----	3. 30
Miller, W. T.-----	3. 50
Mitchell, H. L.-----	0. 00
Noble, L. F.-----	3. 40
Parent, J. H.-----	3. 40
Parker, E. H.-----	3. 40
Pond, G. R.-----	3. 50
Porter, W. LeR.-----	3. 50
Preil, A. O.-----	3. 50
Quinn, J. J.-----	0. 00
Reed, H. A.-----	0. 00
Reed, Wm. F., jr.-----	3. 60
Roughley, H. W.-----	3. 50
Rowe, C. A.-----	3. 30
Rumill, G. E.-----	3. 50
Selden, H. F.-----	3. 30
Sewell, A. T.-----	3. 50
Spaulding, I. D.-----	3. 60
Stiles, H. R.-----	3. 20
Thorburn, H. H.-----	3. 50
Worthington, J.-----	3. 50
Young, K. L.-----	3. 50

Lieutenants (junior grade) :

Arthur, R. W.-----	3. 00
Butler, M., jr.-----	3. 20
Cushman, A. A. ¹ -----	
Davison, R. L.-----	3. 10
Desonier, L. A.-----	3. 10
Fitzgerald, G. R.-----	3. 20
Galloupe, C. A.-----	1. 00
Green, G. B. L.-----	3. 20
Kittredge, L. T.-----	2. 00
Lucas, H. W.-----	3. 00
Reisch, H. P.-----	1. 00
Rodenbaugh, E. S.-----	3. 10
Shields, Wm. L.-----	3. 50
Tilton, J. H.-----	1. 00
Williams, Marcus E.-----	3. 00
Taylor, A. G.-----	3. 20
Wilson, Lincoln S.-----	3. 20
Ensigns:	
Cassidy, W. P.-----	1. 50
Cline, Joseph C.-----	2. 00
Karr, H. H.-----	2. 50
Kelly, S. F.-----	2. 20
Parker, A. N.-----	2. 00
Perkins, A. M.-----	2. 80
Robinson, J. S.-----	1. 70
Waugh, R. S.-----	0. 00
Total, 246.	

Senator WALSH. You marked each of these men on their fitness report?

Admiral BRYAN. They were marked by the board itself; we went over a good many of them.

Senator WALSH. Should the fact that a man entered the Navy as an ensign and had been promoted to lieutenant, junior grade, on the recommendation of his officer, to lieutenant, senior grade, and sometimes to lieutenant commander, give him a good mark on his fitness report?

Admiral BRYAN. That would undoubtedly give him a good mark.

Senator WALSH. As a matter of fact, did not nearly all these men, practically all of them, receive a very high mark on fitness reports and that after all it was not much of a factor?

Admiral BRYAN. No, sir; I can not say that. I do not recollect. You see I was going over 2,000 people. We did not make any exception of these aviators, except that when we came to their examination in aeronautics, we knew they were aviators. They were all X and Y to us. We did not know their names. We would say: "Here is a man who had failed in these subjects. What will we do under our rules? He does so and so. If the record is good, he probably would pass." We would get his record. We would send to the Judge Advocate General and get his record, and go over it, and pass him. I can not tell you offhand how many had good records and how many had not very good records. I know some of those that failed had good records. I know that.

Senator WALSH. A good many of them, did they not?

Admiral BRYAN. I do not recollect. I do not recall over one or two.

Senator WALSH. Regardless of their examination, if they had not had a good record, then they would not be promoted under the regulations of the Navy Department, would they?

Admiral BRYAN. No; I think not.

Senator WALSH. So the very fact that a man with three or four years' service had been promoted two or three grades is pretty strong evidence he had a good fitness report.

Senator WALSH. What was the mark you first fixed as meaning a passing mark?

Admiral BRYAN. Sixty-two and one-half per cent.

¹ Did not complete examination.

Senator WALSH. So that upon a general average of all the examination papers of these men only 27 of 246 had a mark of over 62½?

Admiral BRYAN. In all subjects.

Senator WALSH. Is that 27 out of 295 reserves and temporaries, or just temporaries alone?

Admiral BRYAN. There were really 246 of the Flying Corps examined; in the 295 were some other aviators, naval aviators.

Senator WALSH. Are these 27 the number out of the group of 295 or out of the group of 246?

Admiral BRYAN. Two hundred and forty-six. They are from the Flying Corps.

Senator WALSH. There is a difference between reserves and temporaries. How many of these 27 were reserves?

Admiral BRYAN. They were all on the Reserve Flying Corps, class 5.

Senator WALSH. How many were temporaries?

Admiral BRYAN. None of them.

Senator WALSH. So none of the temporary officers passed at all in the first examination?

Admiral BRYAN. I have not got the record here, of how many passed. The 27 were in the Reserve Flying Corps.

Senator WALSH. Were there not in the Flying Corps both reserve and temporary officers who took this examination?

Admiral BRYAN. I do not know of any temporary officers. I am not specially informed about it.

Senator WALSH. Then we are agreed, Captain, that these 27 all relate to flying officers?

Admiral BRYAN. No, sir; it does not. There were 246 of these aviators. By a recent and more careful count, I find that the Naval Reserve Flying Corps officers who took the examination—

Mr. SCHUYLER. That is class 5.

Admiral BRYAN. Class 5.

Senator WALSH. What ones were temporary?

Mr. SCHUYLER. They were not classified.

Senator WALSH. Captain Williams testified that 295 temporary and reserve officers in class 5 took the examination.

Admiral BRYAN. Not in class 5, but that took the examination.

Senator WALSH. You are talking only about class 5.

Admiral BRYAN. Naval reserve officers, class 5. There were 246 of those that took the examination, and 27 were satisfactory in all subjects.

Senator WALSH. Mr. Chairman. I think you were engaged when I asked a question previously, which is of some importance. You said, Admiral, that 62½ points was the passing mark.

Admiral BRYAN. Yes, sir.

Senator WALSH. But that only 27 of the 246 upon a first inspection of the papers showed themselves to have an average of 62½ points; is that correct?

Admiral BRYAN. That is a fact.

Senator WALSH. What became of those 27? What ranks were they given?

Admiral BRYAN. They were all given the grade they held at that time. They could not be given a higher grade by law.

Senator WALSH. But they were all given that grade?

Admiral BRYAN. Yes. I have a list, as you requested, of their names and grades.

Senator WALSH. So that 27 of them were given either lieutenant senior grade or lieutenant junior grade?

Admiral BRYAN. There seems to be only 23 here. This was just finished. There were 23 of them instead of 27. Four of those belonged to other aviators.

Senator WALSH. That is what I supposed. Four of them were probably temporary officers.

Admiral BRYAN. They were not in class 5.

Mr. SCHUYLER. I think there were some in class 2.

Senator WALSH. So now we have 23 out of the 246 that passed your examination?

Admiral BRYAN. That is correct.

Senator WALSH. And those 23 were given the grade they held at the time?

Admiral BRYAN. Yes, sir.

Senator WALSH. All the others that upon reexamination of their papers were found qualified, under new rules, were made ensigns?

Admiral BRYAN. No, sir.

Senator WALSH. What were they given?

Admiral BRYAN. If they failed in one minor subject only, they were given their grade.

Senator WALSH. So that those who were under 62½ and failed in one subject were treated exactly alike upon reexamination as those who passed a higher mark than 62½?

Admiral BRYAN. Yes, sir.

Senator WALSH. And those who failed in two subjects, how did you rank them?

Admiral BRYAN. In one major and one minor subject they retained their grade.

Senator WALSH. So that you did not reexamine the papers for the purpose of increasing the mark so as to make a higher average than 62½, but your re-examination only related to whether a man had failed in more than one subject or not?

Admiral BRYAN. Whether we could make use of him, and we thought we could.

Senator WALSH. So a man having an average of 44 or 50, and having only failed in two subjects, would be found qualified.

Admiral BRYAN. Yes, sir.

Senator WALSH. How many of these men were finally commissioned in the grade for which they took the examination?

Admiral BRYAN. I have it here roughly; these are mixed up. I am getting that out now, but I do not think I have it complete. Out of the 295 there were 181, but I do not know how many of those were aviators, temporary acting aviators, but I will have that out in a day or two.

Senator WALSH. Would you listen to my question again, please. How many were finally commissioned in the grade for which they took the examination? That is my question—not how many passed or were given any commission.

Admiral BRYAN. How many what?

Senator WALSH. How many of those that took the examination?

Admiral BRYAN. Whether they were temporary or whether they were reserve?

Senator WALSH. Whether they were reserve or what they were that were finally commissioned in the grade in which they were examined.

Admiral BRYAN. I can get the number we recommended. We recommended 181. I can not tell you how many the Secretary commissioned.

Senator WALSH. Did he commission that many?

Admiral BRYAN. I do not know.

Senator WALSH. I repeat my question to you. How many of these men who took the examination class 5 were finally commissioned?

Admiral BRYAN. You did not say that before. You said these men—aviators.

Senator WALSH. Well, aviators, who were commissioned in the grade for which they took the examination.

Admiral BRYAN. We recommended 181.

Senator WALSH. One hundred and eighty-one men were recommended for the grade for which they were examined.

Admiral BRYAN. No, s'r.

Senator WALSH. One hundred and eighty-one were commissioned?

Admiral BRYAN. Yes, sir.

Senator WALSH. But a very small number of them got the grade they had applied for; is not that the fact?

Admiral BRYAN. No, sir. There were 110.

Senator WALSH. So 110 of 181 were commissioned in the grade for which they applied?

Admiral BRYAN. Yes, sir; that which they held at that time.

Senator WALSH. So the facts are that only 110 of the 295 or 246?

Admiral BRYAN. Yes, sir.

Senator WALSH. Retained the commissions which they had?

Admiral BRYAN. Yes, sir.

Senator WALSH. Before the examination?

Admiral BRYAN. That is correct. That is how many we recommended. I do not know what they did with them after they left me.

Senator WALSH. There must be some record some place.

Admiral BRYAN. There is a record, but I have it not.

Senator WALSH. It could be found?

Admiral BRYAN. Surely.

Senator WALSH. Did the Secretary of the Navy change your recommendations?

Admiral BRYAN. I noticed that some of the men we recommended were not included in the confirmations by Congress, which was probably due to physical disability or something of the kind. All I can tell you is what my recommendation was, what the recommendation of the board was. After it leaves me, I have not investigated.

Senator WALSH. Did the Secretary of the Navy add names to those you recommended for commissions?

Admiral BRYAN. I know of none; no, sir.

Senator WALSH. But some were changed?

Admiral BRYAN. No; some failed physically or had other conditions that came in with regard to their record, and some did not accept their commissions. I have no record of that.

Senator WALSH. How many finally accepted their commissions and were retained?

Admiral BRYAN. I do not know. That did not come under my department.

Senator WALSH. But a good many of these 246 are now in the Navy under some form of commission?

Admiral BRYAN. I have no record in my office.

Captain WILLIAMS. We can get it for you.

The CHAIRMAN. Senator, why did you not divide that question to find out how many failed physically of that 110 and how many for personal reasons refused to accept their commissions?

Senator WALSH. I asked earlier in the proceedings for a list of those that refused to accept, because I knew personally of quite a few men who would not accept ensignship.

When regular officers are given examinations for promotion, and you have testified that many of them were similar to this form of examination, are they, if they fail, given more than one examination?

Admiral BRYAN. Yes, sir; they lose six months. They lose the average number by the old law, about 1912 or 1913. They formerly went back a year, but the Navy has grown so much larger that they took them back to the average number that have been promoted in the last five years in six months—that is, they took the total of five years and divided it by ten.

Senator WALSH. How soon after the first failure is the second examination held?

Admiral BRYAN. They lose six months, and it is held at the convenience of the department. Sometimes they are on a foreign station and it is not held for a year.

Senator WALSH. So that no regular officer in the Navy who fails in examination for promotion is dismissed from the Navy upon his first examination?

Admiral BRYAN. Oh, yes; he would be dismissed if he failed in his record.

Senator WALSH. But if he fails in his examination, he is not dismissed?

Admiral BRYAN. No; not under the law, he would not be.

Senator WALSH. I suppose a reserve officer—

Admiral BRYAN. I would modify that a little. If he failed in his moral character. The record is also part of the examination. If he failed professionally on his record, he would still have a chance. If he failed morally, he would be dismissed.

Senator WALSH. We are speaking, of course, of the professional examination entirely.

Admiral BRYAN. Yes, sir.

Captain WILLIAMS. Is any candidate for appointment to the Navy, a midshipman, or any of the staff corps, on the first appointment, given a reexamination?

Admiral BRYAN. It is not customary. I have known them to have sufficient influence to have another examination. In fact, that occurred to me when I entered. I failed physically. I had tuberculosis. That was 42 years ago. I had to have it waived by the Secretary of the Navy and had another examination, but that is only by having sufficient influence to get it. It is not regular and it is not usual.

Senator WALSH. Is a knowledge of aeronautics a duty of a line officer of the Navy?

Admiral BRYAN. They are making it so, sir. An examination is contemplated. The questions are being gotten out for it. And when they feel that that should be part of the duty, they will have an examination.

Senator WALSH. But up to the present time a knowledge of aeronautics is not the duty of a line officer?

Admiral BRYAN. It is not a requirement.

Senator WALSH. Is it or is it not a duty of the line officer?

Admiral BRYAN. Yes, sir.

Senator WALSH. It is the duty of a line officer?

Admiral BRYAN. Yes, sir.

Senator WALSH. So that heretofore up to the present time no man has been promoted in the Navy without a knowledge of aeronautics?

Admiral BRYAN. No, sir; I did not say that.

Senator WALSH. I asked you if it was the duty of a line officer to have a knowledge of the subject of aeronautics. Either it is or is not. That seems to be a simple question.

Admiral BRYAN. It seems to me, sir, it is now a duty to have some knowledge about aeronautics, not about a flying corps, but generally about the handling of airplanes and the elemental part of it.

Senator WALSH. If it is a duty of the line officer to know the subject of aeronautics, it is one of the subjects in which he should be examined for promotion.

Admiral BRYAN. That is one that he should be.

Senator WALSH. Has any line officer up to this date ever been examined in aeronautics?

Admiral BRYAN. Except this examination?

Senator WALSH. Yes.

Admiral BRYAN. No, sir.

Senator WALSH. Do you still state that up to this time a knowledge of aeronautics has been one of the duties of a line officer?

Admiral BRYAN. It has recently become so.

Senator WALSH. When and where is the order?

Admiral BRYAN. The order is they will be examined in this subject at such times as the department feels they should be. The board I am on recommended a year ago that they have an examination in aeronautics and that these officers be required to inform themselves on it and show the board that they had some information on that subject. But we have had the war on our hands, and we have been occupied with many other matters, so that we have not felt it was proper yet to insist upon an examination.

Senator WALSH. All right. There is a difference between making a recommendation and it becoming a duty. Has there been anything more done than a recommendation of the examining board that officers familiarize themselves with aeronautics, so that when the department sees fit to put it in as one of the subjects for examination at the time of promotion, they can do it.

Admiral BRYAN. Yes, sir; they have issued a circular that that will be done.

Senator WALSH. As a matter of fact, no examination has yet been given.

Admiral BRYAN. No, sir.

Senator WALSH. You did in this examination require those who did know aeronautics to be familiar with the duties of a line officer?

Admiral BRYAN. Yes, sir; and we required other specialists, such as electricians and engineers, also to qualify along those subjects, and they are just as much, to my mind, specialists as the aviators.

The CHAIRMAN. Does not the very fact that aeronautics is to be given as one of the requirements of this examination for a line officer show that in the future it will be one of the requirements?

Admiral BRYAN. I should say yes to that.

Senator WALSH. And I think it might well be in the future. I believe that it might well be in the future, and I hope that time will be given for the men who are in the line to know something about aeronautics, and the men who know about aeronautics to have time to know something about line duties.

Admiral BRYAN. There has been a circular issued calling attention to the fact that they must study up in this subject, and an examination will take place at such time as the department sees fit. That was issued about six or eight months ago.

Senator WALSH. You made some reference to experts.

Admiral BRYAN. Yes, sir.

Senator WALSH. That they were given the examination in general line duties. You referred to warrant officers and engineers.

Admiral BRYAN. Yes, sir; and machinists.

Senator WALSH. Is it not a fact that those experts in the performance of their daily duties were brought in contact with officers and officials who knew the general subject of navigation and the general duties of line officers?

Admiral BRYAN. Yes, sir.

Senator WALSH. And that aviators in the natural course of their work were not daily brought in contact with general navigation officers and the general duties of line officers?

Admiral BRYAN. I can not testify as to that. I do not know with whom they were brought in contact.

Senator WALSH. And yet you passed upon these examinations and you marked these papers?

Admiral BRYAN. I did not.

Senator WALSH. But you prepared these questions, and you did not know that 245 of them did not have opportunity in their previous relationships in the Navy—

Admiral BRYAN. Your statement is not correct.

The CHAIRMAN. Let us be fair. He says he did not mark the papers.

Admiral BRYAN. I did not mark the papers.

Senator WALSH. Did you mark any of the papers at all?

Admiral BRYAN. I had occasion to go over some of the papers, where they thought there had been some cheating. I went over those, and I marked those; and, of course, I went over, as I tell you, a great many of the records. Further than that I did not mark any of the papers.

Senator WALSH. But the board has worked under you?

Admiral BRYAN. Yes.

Senator WALSH. And has made the marks under you?

Admiral BRYAN. Yes, sir.

Senator WALSH. Did they submit any questions to you?

Admiral BRYAN. I went over several of my subjects to see that they were marked according to my ideas.

Senator WALSH. Did not you supervise the marking?

Admiral BRYAN. No, sir; the marking was done by younger officers.

Senator WALSH. Under your direction?

Admiral BRYAN. They were under our supervision; yes.

Senator WALSH. More than any other man in the Navy you knew about these examinations by reason of your position?

Admiral BRYAN. I do not consider that I am an expert on all those subjects; no, sir.

Senator WALSH. But you, with the other two men serving with you, fixed the percentage that should be given to each subject?

Admiral BRYAN. No; that was fixed by the people that marked the papers. They gave the percentage in each subject.

Senator WALSH. But you gave the total that could be allowed for each subject?

Admiral BRYAN. No; we went over their marks and made out the total from them.

Senator WALSH. Did not you apportion the percentage that each subject should be given?

Admiral BRYAN. No, sir.

Senator WALSH. Who did it?

Admiral BRYAN. The people that marked them.

Senator WALSH. So that the men that marked the engineering could have made that subject 500 or 100 points?

Admiral BRYAN. They marked conscientiously.

Senator WALSH. I do not mean that. What was the total maximum? Who fixed the total maximum percentage that each subject should have?

Admiral BRYAN. That was fixed by the board.

Senator WALSH. By you, of course?

Admiral BRYAN. Yes.

Senator WALSH. As one of the board you did apportion the percentage that should be given in a given subject of the total points?

Admiral BRYAN. That were required in each subject.

Senator WALSH. And all during this time that you were doing this, preparing this examination, the form and character of it, the percentage of marks, and arranging for those who would examine the papers, and supervise them, you knew nothing whatever as to what extent 245 of these men had come in contact with regular line officers or the duties of regular line officers?

Admiral BRYAN. I did not know that about any of them, whether they were these men or any of the others.

Senator WALSH. You knew the other men—

Admiral BRYAN. I have no doubt these men were in touch with people whom they were under, and I do not see how they could help absorbing some knowledge after being in touch with them.

The CHAIRMAN. We will have to close to-day, Senator, at 12 o'clock promptly.

Senator WALSH. I have only one or two questions more. Is it not true that regular line officers have at times been given as many as three examinations in the subject in which they failed for promotion?

Admiral BRYAN. I do not remember any since I have been on the board, two years. I do not recollect of any such case.

Senator WALSH. You never heard of any case where a man got a third examination?

Admiral BRYAN. I do not recollect of hearing of any such case. It may be possible on further thought I could find some, but I do not at present recollect any.

Senator WALSH. I do not think of any more questions.

Captain WILLIAMS. I do not think I have any more questions.

Senator WALSH. Do I understand you have finished with your testimony?

Captain WILLIAMS. I think I have finished. Referring to the information you requested us to obtain over the telephone, early in the hearing this morning, the officer has a report to make, and it will take but a minute.

STATEMENT OF LIEUT. COMMANDER E. W. SPENCER, UNITED STATES NAVY.

Lieutenant Commander SPENCER. The Navy Register for September, 1919, lists the following officers as on duty at the naval air station, Akron, Ohio:

Lieut. H. W. Hoyt, United States Navy, commanding.

Lieut. E. W. Sheppard, reserve force.

Lieut. (Junior Grade) T. C. Lonnquest, reserve force.

Lieut. (Junior Grade) (T.) M. H. Downs, United States Navy.

Ensign B. W. Mathes, reserve force.

Ensign D. H. O'Day, reserve force.

Ensign L. A. Pope, reserve force.

Ensign H. W. Powers, reserve force.

Ensign F. H. Sloman, reserve force.

Summary: One regular commissioned officer, one temporary commissioned officer, and seven reserve commissioned officers.

That makes a total of 12 officers who were available for instruction at that time.

Senator WALSH. Lieutenant Sheppard, who is mentioned in that list, is in the room. I will interrogate him. What is your name?

Lieutenant SHEPPARD. Edgar W. Sheppard.

Senator WALSH. What is your rank?

Lieutenant SHEPPARD. Ensign at the present time; it was lieutenant.

Senator WALSH. Have you been reduced to the rank of ensign?

Lieutenant SHEPPARD. Yes, sir.

Senator WALSH. You heard your name read as being at the school at Akron, about which discussion has been had this morning?

Lieutenant SHEPPARD. Yes, sir.

Senator WALSH. Did you attend any such school there?

Lieutenant SHEPPARD. I have never been assigned to duty at Akron.

Senator WALSH. You never have been there at all?

Lieutenant SHEPPARD. No, sir.

Senator WALSH. And the statement made by the naval officer over the telephone that you were there and attended a school there—had opportunity to attend a school—is that true?

Lieutenant SHEPPARD. It is not.

Senator WALSH. That is all.

Captain WILLIAMS. I prefer to perfect that statement at the department and let the committee have it in writing.

The CHAIRMAN. You will be present at the next hearing?

Lieutenant SHEPPARD. Yes, sir.

The CHAIRMAN. The committee will adjourn.

(Whereupon, at 12 o'clock noon, the subcommittee adjourned until to-morrow, Thursday, April 20, 1922, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

THURSDAY, APRIL 20, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The committee met pursuant to adjournment at 10 o'clock a. m., in the committee room, Capitol, Senator L. Heisler Ball presiding.

Present: Senators Ball (chairman), Keyes, and Gerry.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order.

Captain WILLIAMS. May I correct a telephone message that was hurriedly taken from the Naval Directory yesterday and reported to this committee just before we adjourned?

(The corrected telephone message is here printed in full, as follows:)

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., April 19, 1922.

A statement, which was hurriedly taken from the Navy Directory, was presented to the committee yesterday that, among others, the following-named officers of the Naval Reserve Force were on duty at the naval air station, Akron, Ohio, in August, 1919:

Lieut. E. W. Sheppard, Reserve Force.

Lieut. (Junior Grade) Theodore C. Lonnquest, Reserve Force.

Ensign B. W. Mathes, Reserve Force.

Ensign D. H. O'Day, Reserve Force.

Ensign L. A. Pope, Reserve Force.

Ensign H. W. Powers, Reserve Force.

Ensign F. H. Sloman, Reserve Force.

The Navy Directory does so list those officers, but an investigation of their records shows that but three of these officers of the reserve force were on duty at that station at the time. They were Lieut. Frank H. Sloman, Lieut. (Junior Grade) Theodore C. Lonnquest, and Ensign D. H. O'Day.

Senator WALSH. Have you found out, Captain, the nature of that school?

Mr. SCHUYLER. It is a school of instruction.

Senator WALSH. Am I correct in stating that the Akron School is the center of the lighter-than-air activities of the Navy, and that there has always been maintained, and was at this time, a lighter-than-air balloon school for the instruction of men in lighter-than-air craft, exactly the same as there is a school of instruction for those who are to fly heavier-than-air craft?

Captain WILLIAMS. I am unable to testify to that, from my personal knowledge.

Senator WALSH. Lieutenant Bradford can testify about that.

Captain WILLIAMS. Do you know, Admiral Moffett?

Admiral MOFFETT. I can tell you about the present status.

Senator WALSH. Is not Akron, Ohio, the Pensacola for lighter-than-air craft?

Admiral MOFFETT. No; I would not say it is. It is the principal source of our supply of material for lighter than air. Most of our material for lighter than air comes from Akron.

Senator WALSH. Did you have a school of instruction there?

Admiral MOFFETT. There was a school there; there is none there now.

Senator WALSH. Was it there in 1919 and in 1920?

Admiral MOFFETT. Yes; I think so. That was before my time.

Senator WALSH. It was a school for instructing people in flying in lighter-than-air craft, the same as the school at Pensacola is for instructing men in flying heavier-than-air craft?

Admiral MOFFETT. I think so, but I would like that confirmed by one of the lighter-than-air people. That is my belief, however.

Lieutenant BRADFORD. It was transferred to Pensacola after they closed the school up there.

Admiral MOFFETT. I have had the bureau almost exactly a year, and since that time the lighter-than-air activity was transferred to Pensacola—nearly all of it. There is very little of it now, owing to our reduced appropriation. We can not afford to keep it up, because we have so little money.

Senator WALSH. Have you anything else to put in, Captain?

Captain WILLIAMS. No.

Senator WALSH. Captain, I do not want to be complaining, but I did make a request to find out what kind of a school you had at Akron, and I have no more information this morning than I had yesterday.

Captain WILLIAMS. I am under the impression that Lieutenant Commander Ellyson can testify about it, but he has temporarily stepped out to the telephone to get some information you have requested. I will find it for you. I am sorry I did not get it. It can be obtained.

TESTIMONY OF LIEUT. JAMES PAULDING FARNHAM, UNITED STATES NAVY.

(The witness was sworn.)

Senator WALSH. State your name and rank.

Lieutenant FARNHAM. James Paulding Farnham, lieutenant (senior grade), United States Navy.

Senator WALSH. Where is your home?

Lieutenant FARNHAM. At New York City.

Senator WALSH. How old are you?

Lieutenant FARNHAM. Twenty-six.

Senator WALSH. Where were you at the outbreak of the war?

Lieutenant FARNHAM. At Yale College.

Senator WALSH. In what class?

Lieutenant FARNHAM. The class of 1920.

Senator WALSH. What did you do after the outbreak of the war?

Lieutenant FARNHAM. I enlisted.

Senator WALSH. How soon after the outbreak of the war?

Lieutenant FARNHAM. Two days after the outbreak of the war.

Senator WALSH. You left college?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. In what capacity did you enlist?

Lieutenant FARNHAM. I enlisted as an electrician, third class, in the aviation section of the First Battalion, New York Naval Militia.

Senator WALSH. How old were you at that time?

Lieutenant FARNHAM. I was 21.

Senator WALSH. Where were you assigned to duty after you enlisted?

Lieutenant FARNHAM. A week after I enlisted I was assigned to duty at the naval air station at Bay Shore, Long Island, which was at that time the Naval Militia Aviation School.

Senator WALSH. How long did you remain there, and what did you do there?

Lieutenant FARNHAM. I remained there until November 8, 1917.

Senator WALSH. What were your duties during this time?

Lieutenant FARNHAM. Sea-plane mechanic, general detail, ground school instruction, and preliminary flight instruction.

Senator WALSH. Which was all given to you?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What happened in November?

Lieutenant FARNHAM. I was transferred to the naval air station at Miami, Fla., for advanced training.

Senator WALSH. Had the accident happened at this time?

Lieutenant FARNHAM. No, sir.

Senator WALSH. What do you mean by advanced training?

Lieutenant FARNHAM. Advanced flight training.

Senator WALSH. You had had the preliminary flight training and went for advanced?

Lieutenant FARNHAM. Yes.

Senator WALSH. What is included in advanced flight training?

Lieutenant FARNHAM. Flying several types of machines; at that time flying such types of machines as the Navy had, and gunnery, bombing, and some, very little, radio work.

Senator WALSH. How long were you taking the course in advanced training?

Lieutenant FARNHAM. From November 11, 1917, to February 18, I believe it was.

Senator WALSH. In 1918?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Then what was your assignment? By the way, had you gotten any promotion up to this time?

Lieutenant FARNHAM. No; except to the status of student officer.

Senator WALSH. What did you do after February, 1918?

Lieutenant FARNHAM. Before I was commissioned as ensign I had charge of the school for instruction of radio electricians in gunnery, bombing, motors, rigging, and some slight finishing up in radio work.

Senator WALSH. You mean you were selected from the other students that were going through these courses to become an instructor?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Even before you were made an ensign?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. You were instructing whom?

Lieutenant FARNHAM. I was instructing these radio men.

Senator WALSH. Other men that came down after you, you were instructing in the same courses that you had passed through?

Lieutenant FARNHAM. Yes, sir. Their work was not exactly the same, because they were not learning to fly. They were learning to be observers.

Senator WALSH. How many students did you have when you were instructing?

Lieutenant FARNHAM. Two hundred and forty or two hundred and fifty.

Senator WALSH. We are speaking of the time before you were an ensign.

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What were your duties? Did you have classes?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. You lectured to students, or did you make experiments in their presence?

Lieutenant FARNHAM. I lectured to the students.

Senator WALSH. When were you made an ensign?

Lieutenant FARNHAM. On March 25, 1918.

Senator WALSH. Did you take examination for that?

Lieutenant FARNHAM. No, sir.

Senator WALSH. Did you apply for an ensignship?

Lieutenant FARNHAM. I was recommended by my commanding officer. I had a physical examination.

Senator WALSH. After you were made ensign where were you stationed?

Lieutenant FARNHAM. At Miami.

Senator WALSH. You say at Miami?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What continued to be your duties there?

Lieutenant FARNHAM. After being commissioned I had command of the two bombing divisions of the advanced training squadron.

Senator WALSH. What does that mean?

Lieutenant FARNHAM. That means I had command of the plant and supervision of the air instruction in bombing on the station.

Senator WALSH. How many men were in your division?

Lieutenant FARNHAM. There were, as I remember, four officers.

Senator WALSH. Under you?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Were they of the rank of ensign?

Lieutenant FARNHAM. Yes, sir; 4 officers and about 15 mechanics. There were about 15 or 20 men receiving instruction in bombing passing through.

Senator WALSH. At a time?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. How long did you have these men under your instruction?

Lieutenant FARNHAM. These students, you mean?

Senator WALSH. Yes.

Lieutenant FARNHAM. About 10 days.

Senator WALSH. So that every 10 days a new class of 15 or 20 men would come to you to pass through in the bombing instruction and then go off to some other activity, and 15 or 20 other men would come in?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. That kept going on for how long?

Lieutenant FARNHAM. For about a month.

Senator WALSH. You also had charge of instructing these men who were to go across the sea, in bombing?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. You were in charge of that instruction?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. After that month, what happened?

Lieutenant FARNHAM. I went on 10 days' leave and returned to the station.

Senator WALSH. That was your first leave since you had entered the Navy?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. After a year before?

Lieutenant FARNHAM. Yes, sir. I returned to the station on the 6th of May, and was immediately employed in submarine patrol work. Every available pilot and machine on the station was employed in submarine patrol work.

Senator WALSH. The submarine scare had started at this time in the country?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. The suspicion or knowledge that German submarines were off the coast led to a change in the activities of the station?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Will you describe what your duties were in that direction?

Lieutenant FARNHAM. In patrol work?

Senator WALSH. Yes. What do you mean by submarine patrol?

Lieutenant FARNHAM. We used such machines as were available. Some machines did not have any bombs or machine guns. They were small training-machines. They were all sent out to see if they could see anything of the submarines and if possible report them to the submarine chasers.

Senator WALSH. So that you were patrolling the coast?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Going out to sea in planes to find German submarines?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. How long did you keep up that activity?

Lieutenant FARNHAM. About two weeks.

Senator WALSH. And then what was the next work you undertook?

Lieutenant FARNHAM. Then I was assigned to organize a command, a preliminary training squadron, because the station had been changed over from an advance station to a preliminary station.

Senator WALSH. You were to organize what kind of an advance squadron?

Lieutenant FARNHAM. A preliminary squadron.

Senator WALSH. A preliminary squadron of what?

Lieutenant FARNHAM. Preliminary training of students reporting on the station.

Senator WALSH. For the first time?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did you organize a squadron?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What did the organization consist of, that you had?

Lieutenant FARNHAM. The squadron was organized on an island 2 miles from the main station. It consisted of the selection of personnel; that is, mechanics, yeomen, hospital corpsmen, and cooks, and general detail. It consisted of the selection of all the personnel for the squadron, the obtaining of material for a dock, for runways, for a mess hall, and the necessary tents for living quarters for the duty crews, and the office. It consisted of the selection of officers as instructors, and the establishment of the squadron—that is, the erection of the machines, flying the machines to this island, and getting everything in readiness to start the preliminary training of the students who were reporting from Boston Tech.

Senator WALSH. In other words, you were assigned by your superior officer to organize a separate unit on an island off the coast of Florida for a preliminary training school, and you were to take charge of every detail of that, selecting the personnel, building the necessary buildings, getting the equipment, the planes, and everything else required to establish a separate unit?

Lieutenant FARNHAM. Yes, sir. The island was not off the coast. It was in the bay.

Senator WALSH. How far from the main station?

Lieutenant FARNHAM. Two miles.

Senator WALSH. How many officers were under you—under your command—at this station on the island to which you have referred?

Lieutenant FARNHAM. Eleven.

Senator WALSH. How many students?

Lieutenant FARNHAM. From 60 to 75.

Senator WALSH. At a time?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. How long did these students remain?

Lieutenant FARNHAM. They remained, as I remember, an average of about a month.

Senator WALSH. Then 60 or 75 new ones would come?

Lieutenant FARNHAM. They were continually rotating.

Senator WALSH. In addition to all your other work, did you have to observe the training of these men and to make a record of the same to your superiors?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did you have to pass upon the fact as to whether each of these men was qualified or not to fly a machine?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did you have to do that clerical work?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Was the mess hall established under your direction?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. The purchasing of supplies and all the other work necessary to maintain that station was all under your supervision?

Lieutenant FARNHAM. Not the purchasing.

Senator WALSH. Was the obtaining of the necessary ground and supplies to be used?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. How long were you in charge of this work?

Lieutenant FARNHAM. Nine weeks.

Senator WALSH. And you were still only an ensign?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. I think you told me in private conversation that conditions were such there that the students could not remain nights on account of the mosquito pests?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And that the men had to go back and forth nights to sleep, at the main station?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What time would they come in in the morning, and what time go back at night?

Lieutenant FARNHAM. It was necessary to leave the main station at 3.30 in the morning and return at about 8 o'clock at night.

Senator WALSH. What was your record so far as accidents were concerned at this time at that station?

Lieutenant FARNHAM. I flew 3,000 hours without any breakage whatsoever.

Senator WALSH. That is, students under your direction?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. No one of these students could be certified as a competent pilot without your personal approval?

Lieutenant FARNHAM. No, sir.

Senator WALSH. After these nine weeks where did you go?

Lieutenant FARNHAM. I was ordered back to the main station to organize another squadron.

Senator WALSH. This was on a running basis, and you were sent to organize another?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did you organize another squadron?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What was that squadron?

Lieutenant FARNHAM. That was similar to the other one, preliminary training.

Senator WALSH. Did you go through the same process that you have described in the case of the first organization?

Lieutenant FARNHAM. Inasmuch as the other squadron was on the main base, it was not necessary to build runways and organize the other work.

Senator WALSH. But you had to get the personnel together?

Lieutenant FARNHAM. Yes, sir.
Senator WALSH. How long were you detailed on that work?
Lieutenant FARNHAM. About six weeks.
Senator WALSH. What was the next charge intrusted to you?
Lieutenant FARNHAM. I was head of the instruction department.
Senator WALSH. Was it a promotion?
Lieutenant FARNHAM. It was from squadron commander in the department to the head of the department.
Senator WALSH. What was the title of your position?
Lieutenant FARNHAM. Inspection officer.
Senator WALSH. What were your duties as inspection officer?
Lieutenant FARNHAM. I had, personally and through enlisted men, charge of the inspection of all aviation material on the station, the testing of all new material and overhauled material, and the condemnation of all material that was unfit for use.
Senator WALSH. So that you had really to pass upon the safety of every flying machine there?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. Before it could be used?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. You were in the position where if an accident happened through carelessness of inspection you might be charged with the same, or those under you?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. How many machines were there at that time subject to your inspection?
Lieutenant FARNHAM. There were in the neighborhood of 125, not all of them set up.
Senator WALSH. Those that were being set up, were they under your direction, too?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. When they were set up you had to test them out?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. Did you fly them yourself, or somebody under your direction?
Lieutenant FARNHAM. I flew them myself.
Senator WALSH. So that you were often the first person to get in a machine after it had been set up and before anyone else could fly in it?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. You had to assure yourself of the safety of the appliances and the proper construction of the machine before it could be used by anybody else, and your life was endangered?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. Were you doing that daily during this period?
Lieutenant FARNHAM. Almost daily.
Senator WALSH. How long did you maintain that position of inspector?
Lieutenant FARNHAM. Until I went on inactive duty, January 31, 1919.
Senator WALSH. After the war was over?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. Had you up to this time received any promotion in rank?
Lieutenant FARNHAM. Yes, sir. On December 5 I was commissioned provisional lieutenant, junior grade, with rank, from October 1, 1920.
Senator WALSH. Was that solicited or was it given to you by your superior officer in recognition of your service?
Lieutenant FARNHAM. It was upon the recommendation of the commanding officer.
Senator WALSH. You did not go to Europe?
Lieutenant FARNHAM. No, sir.
Senator WALSH. Did you try to go to Europe?
Lieutenant FARNHAM. Yes, sir.
Senator WALSH. Why did you not get there?
Lieutenant FARNHAM. The explanation that the commanding officer gave me was that some officers had to remain on this side to train the others.
Senator WALSH. That your value to your Government was remaining here and training other officers?
Lieutenant FARNHAM. That is what I understood; yes.

Senator WALSH. The war being over, you wanted to get back to school, I suppose.

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And you got on inactive duty?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What did you find the conditions at the school to be?

Lieutenant FARNHAM. I found that all my classmates who had stayed in college and had enlisted in the Reserve Officers' Training Corps, in college, and had gotten their commissions in the Field Artillery, were all two years ahead of me, because they had remained in college and gotten their military training for the most part in college.

Senator WALSH. With the result that you decided to go in business?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And you did take up some business?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Into what business did you go?

Lieutenant FARNHAM. I went into commercial aviation.

Senator WALSH. Did you find yourself happy and contented out of the Navy, or did you have a longing to get back into the service?

Lieutenant FARNHAM. I wanted to get back into the service.

Senator WALSH. When did you make up your mind that you wanted to devote your life and career to your country in the aviation service?

Lieutenant FARNHAM. I decided to go back on active duty when the circular in regard to the examinations was made public.

Senator WALSH. And was the circular mailed to you about October, 1920?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Then you decided that you would like to make it your career?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did you return with the object in view of making it your career?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. When you came back into the service, where were you stationed?

Lieutenant FARNHAM. To the air-boat squadron of the Atlantic Fleet air force.

Senator WALSH. Do you know what time you joined them?

Lieutenant FARNHAM. November 29, 1920.

Senator WALSH. This was entirely new work to you?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. You have been with that fleet from that time up to the present?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Will you state to the committee just what your work was with the fleet, what activities you and your associates with you were doing?

Lieutenant FARNHAM. Yes, sir. Upon reporting to the fleet air force and being assigned to the air-boat squadron, I was assigned to one of the big flying boats as an assistant pilot.

Senator WALSH. You might tell us the difference between a flying boat and the boats that fly off the turrets that Lieutenant Commander Haviland spoke of—the difference between your type of boats and the type that he described to the committee the other day.

Lieutenant FARNHAM. Last winter, in addition to the kite balloon division, there were two squadrons, a ship-plane squadron and an air-boat squadron. The ship-plane squadron consisted of the land machines; small scout machines designed to fly off the turrets of a battleship. The air-boat squadron consisted of big twin motor flying boats which are used mostly for bombing, and in addition for spotting.

Senator WALSH. They are anchored on the water?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. How large are they?

Lieutenant FARNHAM. It has a wing spread of 104 feet.

Senator WALSH. What is their weight?

Lieutenant FARNHAM. Fourteen thousand some odd pounds.

Senator WALSH. How many do they carry?

Lieutenant FARNHAM. We carried, usually, six.

Senator WALSH. For the last year you have been flying one of those boats?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. How many boats are there connected with the squadron?

Lieutenant FARNHAM. There are six of those F-5-L twin motored flying boats and one NC type. There is an additional NC boat which is now undergoing repairs at the naval aircraft factory at Philadelphia.

Senator WALSH. Are the men flying those boats in the squadron regular officers or reserve officers?

Lieutenant FARNHAM. Of the seven boats in operation with the air-boat squadron, which is now known as Scouting Squadron No. 1, of the seven commanding officers of those plans five are reserve officers and two are ex-reserve officers who made their grade in the regular Navy.

Senator WALSH. So that there is no regular officer at all trained for that work in that squadron?

Lieutenant FARNHAM. No, sir.

Senator WALSH. Of those seven men, how many of them failed in the examination, and how many in addition to those that failed are going to leave the service?

Lieutenant FARNHAM. Of the five who are still reserves, two failed in the examination; three did not take it, owing to lack of time for preparation; and the other two made their grade in the Regular Navy.

Senator WALSH. So that five of them will, on the 30th of June, in all probability, unless some action is taken different from that contemplated, be relieved from duty?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Among them yourself.

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Will you state to the committee the difficult character of manning a boat of this kind, and what your observation has been about the capacity of men to learn to man them? You might incidentally state when you left to come here to this hearing what the situation was about getting a man to take your place. In other words, I am trying to develop whether or not the removal of these men will cripple the service, or whether it can go on without you. I want you to be fair about it. I ought to say, before I overlook it, that you did not take the examination and therefore you did not fail.

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Your sole interest is what you regard for the welfare of the Navy?

Lieutenant FARNHAM. Yes, sir.

Captain WILLIAMS. You say he did not take the examination?

Senator WALSH. No. He will explain why later, although he wants to stay in.

Lieutenant FARNHAM. From my point of view, the work of the air-boat squadron of the fleet—that is, the operation of these big boats with the fleet air squadron—required practical experience in that work for a long period of time. It has always been customary in the fleet air squadron for an officer to be attached to one of these boats as an assistant pilot for at least six months, in order that he may familiarize himself in all respects with the work.

It entails a great deal of work in flying out of sight of the land; it entails work in landing in unknown harbors and rivers—that is, rivers that may be charted, but peculiar circumstances are not known which are encountered in landing and taking off with a big flying boat; it entails such work as spotting, photography—that is, photography of target practice, the photography of torpedo practice. A high degree of radiocommunication must be maintained. Peculiar weather conditions not encountered in flying around close to the coast and around air stations are encountered, which must be taken care of by a knowledge of how to handle a machine under those circumstances which can only be obtained through practical experience.

Senator WALSH. Is it difficult to pilot this machine in comparison with other machines?

Lieutenant FARNHAM. No, sir.

Senator WALSH. Can a man pilot this machine as well as any other machine?

Lieutenant FARNHAM. If he has had training in that machine.

Senator WALSH. You say it carries six?

Lieutenant FARNHAM. Yes, sir; ordinarily.

Senator WALSH. And there is always one man in the ship that you are training for piloting?

Lieutenant FARNHAM. There has been; yes, sir.

Senator WALSH. When you left the squadron, what was the condition about having any one of the six men in any one of these six boats in a position to take your place?

Lieutenant FARNHAM. Of the regular officers who were assigned to our boats as assistant pilots for instruction in fleet work after they had graduated from the school at Pensacola, there were none who were ready in the opinion of the squadron commander to take command of my boat when I was ordered up here. The division commander of the second division, who was a reserve and made his grade in the Regular Navy, took command of my boat.

Senator WALSH. So that there was not an officer in the regular service who could take command of these boats, and everyone of the boats is being manned by reserve officers?

Lieutenant FARNHAM. Yes, sir; except the squadron commander.

Senator WALSH. And from your experience of a year with this fleet, if all these reserve officers, these six men you have described, or seven, should resign or leave the Navy, what would be the condition about manning these boats? Who could take their place?

Lieutenant FARNHAM. By the 1st of June or by the end of June it may be possible that the regular officers with us for instruction will be capable of handling the boat. At present it is not the opinion of the officers in authority in the fleet air force that they are capable of handling these boats. What they will be ready to do at the end of June, it is difficult for me to say.

Senator WALSH. How long have these men been with you?

Lieutenant FARNHAM. Since January.

Senator WALSH. Where are the men that were with you the six months previous?

Lieutenant FARNHAM. During the summer we had enlisted men as assistant pilots.

Senator WALSH. Enlisted men?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Since January you have been having Academy men?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Who have been through the school at Pensacola?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And then were sent to you?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Is there anything else in connection with your work with the squadron that you want to refer to?

Lieutenant FARNHAM. With regard to the time we had to study.

Senator WALSH. I am going to take that up with you now. You went in in November of 1920, and the examination came in May?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What school was organized for your squadron during that period of time, if any?

Lieutenant FARNHAM. A course of lectures was organized in which note books were to be kept and turned in to the commanding officer at the end of each week. About 15 or 20 lectures were given altogether during the whole winter, mostly on navigation. The subject of electricity was covered in 35 minutes.

Senator WALSH. That is, the whole instruction that you men got on electricity in that squadron consisted of a 35 minute lecture?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. You are sure of that?

Lieutenant FARNHAM. That was the only regular lecture that was given on electricity.

Senator WALSH. When were those 20 lectures given, at night, in the daytime, or when?

Lieutenant FARNHAM. They were given in the afternoon.

Senator WALSH. Where were they given, on what vessel?

Lieutenant FARNHAM. On the *Shawmut*, the flagship of the squadron.

Senator WALSH. So you would come from your work on the *Shawmut*—

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. To get your lecture?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Were you flying at this time and carrying on your work, your regular work?

Lieutenant FARNHAM. Yes, sir. It varied because the lectures were given at different ports where the operations were different.

Senator WALSH. Did you get textbooks and try to study these subjects?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What did you do, with whom did you study, with any of your companions or by yourself? How did you proceed to prepare yourself for examination?

Lieutenant FARNHAM. The lectures started when the squadron was at Key West. I believe we arrived there the 29th of December, 1920, and we were there for six days.

Senator WALSH. That was the first lecture course?

Lieutenant FARNHAM. Those were the first lectures. There were four held then in navigation, and I attended those.

Senator WALSH. How long did they last?

Lieutenant FARNHAM. They lasted an hour or an hour and a quarter, I do not know which.

Senator WALSH. Then the *Shawmut* moved to some other port?

Lieutenant FARNHAM. Then we flew to Guantanamo Bay, and were on board the *Shawmut* at Guantanamo Bay for six days.

Senator WALSH. What was the interval between?

Lieutenant FARNHAM. Five days. We were at Guantanamo for six days, preparing for the flight across the Caribbean Sea to Colon. This necessitated a great deal of special work. I had offered a suggestion that the top wings of all fleet planes be painted in big black and white strips that they might be better seen in case of a forced landing at sea, and that system of painting the wings was adopted by the commander of the air force, and I was directed to carry out and supervise the work of having the top wings painted.

Senator WALSH. So as to get ready for the Caribbean flight?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did this take you from the *Shawmut*?

Lieutenant FARNHAM. Yes, sir. It required an entire day's work.

Senator WALSH. Then you made the flight over the Caribbean Sea?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. When next did you get back to the *Shawmut*?

Lieutenant FARNHAM. In Colon.

Senator WALSH. How far were you advanced now toward May?

Lieutenant FARNHAM. We arrived at Colon on January 19.

Senator WALSH. How long were you in Colon?

Lieutenant FARNHAM. A month.

Senator WALSH. What opportunity was there for instruction or study?

Lieutenant FARNHAM. More lectures were given, mostly on navigation. By that time, during the week's work at Guantanamo, I had lost about three lectures on navigation; so that the work that the few who had had time to study were doing was ahead of me and I could not understand it.

Senator WALSH. Will you state to the committee how the study of navigation impressed you as you began to study it, and what preliminary studies you had in school with which you had to refresh your memory in order to be able to grasp it at all?

Lieutenant FARNHAM. I had to refresh my memory on such advanced mathematics as I had had at college.

Senator WALSH. In other words, navigation is higher mathematics?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. You found it all Greek to you unless you had refreshed your memory with some of the mathematics you had had in college?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Such as algebra, geometry—

Lieutenant FARNHAM. Yes, sir; and trigonometry.

Senator WALSH. What do you say about navigation as to its intricacy and difficulty to master without close study, application, and concentration?

Lieutenant FARNHAM. It is not such a difficult subject, providing problems can be explained and providing that the actual problems in navigation, such as arise in a day's work, can be actually explained under the conditions under which they occur. That is, taking sights, and so forth and so on, can be better understood and can be better learned if they can be explained on the bridge of a vessel under way.

Senator WALSH. To what would you liken an effort to learn navigation without having been at sea?

Lieutenant FARNHAM. I would liken it to learning any higher mathematics, such as trigonometry or calculus.

Senator WALSH. How necessary is it to have the practical experience of being on a bridge at sea to know navigation?

Lieutenant FARNHAM. No officer in the Navy or officer in merchant service would be entrusted as officer of the deck or officer of the watch at sea until he had had a long experience as a junior officer of the watch or junior officer of the deck.

Senator WALSH. Did you have some companions associated with you; were there any particular companions you studied with during this time?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. I am going to ask you about them in a minute. Will you give me their names?

Lieutenant FARNHAM. Lieutenant Guest.

Senator WALSH. What is his full name?

Lieutenant FARNHAM. Joseph H.

Senator WALSH. Will you tell us something about him? First let me ask you this: Is Guest in the naval air service as a matter of love and because of liking to make that a career rather than professional necessity?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. I want to distinguish between a man that is dependent upon the salary for an income, and I would like to ask you whether you are.

Lieutenant FARNHAM. Not absolutely, sir.

Senator WALSH. The financial side of it with Guest is inconsequential; is that true?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And in a measure that is true of yourself?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Will you tell us a little about Guest, because I want the committee to know something about the value of his service, in a very general way.

Lieutenant FARNHAM. He was trained first as a lighter-than-air pilot, and in 1918 received heavier-than-air training, and has been assigned to various duties since. In 1918, while at Hampton Roads during a fire, he rescued four men from the fire and saved a good deal of material, and ceased his work at the fire only after having been overcome for the third time and being taken to a hospital. For this he was recommended for the Navy cross, but nothing further was heard of it than the recommendation.

He later went to Miami for instruction, and upon completing his instruction was assigned to the fleet as boat officer in charge of rescue work. He personally saved three men from crashing, and assisted in saving several others while at Miami.

Last year he was attached to the fleet air squadron as aviation repair officer. On the flight from Jacksonville to Miami he was a passenger in one of the boats. Another one of the boats had a forced landing off Cape Canaveral, Fla., and in the rough seas stove a hole in the side of the hull and began to sink. The plane in which Lieutenant Guest was riding as a passenger landed and also stove a hole in the side of the hull. They were landing to rescue the other crew. Lieutenant Guest, although a passenger, got into the pilot seat and taxied the plane 4 miles through the rough seas and beached it before it finally sank. Lieutenant Garvey, in another plane, landed in the sea to rescue the crew of the first plane, and taxied with it to within about 100 yards of the beach. In taxying a wave had hit one of his propellers and had cracked it. He semaphored into the beach that one of his propellers was cracked, and Lieutenant Guest took the propeller off the plane that had been beached and swam with it through the surf to Lieutenant Garvey's plane. It took him 40 minutes to swim the 100 yards.

He helped put the propeller on Lieutenant Garvey's plane, and then started to swim ashore with a line so that the rescued crew of the first plane could get ashore, as there were two men in the plane that could swim but little. The current was so strong and it carried him so far away from the beach that he had to let go of the line, and he was just able to make the beach himself. Lieutenant Garvey taxied about 8 miles farther down the beach, where there was a small inlet, and got the rescued crew ashore—anchored at sea all night and took off and flew to Miami in the morning.

Senator WALSH. Was Lieutenant Guest commended for this?

Lieutenant FARNHAM. Not as far as I know.

Senator WALSH. Was it a matter of comment among his fellow officers?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. As to the bravery that he manifested?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And the risk he undertook?

Lieutenant FARNHAM. Yes, sir. It was printed in the paper published last year on the *Pennsylvania*, the flagship of the Atlantic Fleet.

Senator WALSH. From your knowledge of the men who have been associated with you in this fleet squadron work, what do you say about the loss of men like the lieutenant to the service?

Lieutenant FARNHAM. It would be very difficult to estimate the value of men and to appreciate the value of men like Lieutenant Guest until after they have left the service.

Senator WALSH. Did there come a time when you and Guest had to make a decision about the examinations? As the time approached, did you talk it over among yourselves and come to a decision?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. To what decision did you both come?

Lieutenant FARNHAM. We decided there was only one way to do a thing, and that is to do it as well as possible, and we felt that the time we had had to prepare for the examination was not sufficient in which we could obtain the knowledge required to get a good mark or to make our rank in the examination.

Senator WALSH. Was the only reason you did not take the examination that you did not want to humiliate yourself by failure, and you knew you would fail?

Lieutenant FARNHAM. I did not know whether I would fail or not. Because of the amount of knowledge that had to be obtained in the six months, and in the limited amount of time we had to study, after we had carried on our regular duties, we decided we had not been able to get enough out of our textbooks and of the lectures we had been able to attend to pass the examination.

Senator WALSH. Have you seen the questions since? Did you see the questions since the examination?

Lieutenant FARNHAM. No, sir.

Senator WALSH. So that you know something of the scope of them?

Lieutenant FARNHAM. I know the general scope; yes.

Senator WALSH. What do you say about that examination—about the ability after from one to six months' study of textbooks, and never having been to sea—of being able to pass the examination?

Lieutenant FARNHAM. A man might get the underlying principles of all those subjects; he might understand them, and he might get only the surface; it would all depend on the man. But I doubt very much if the knowledge that could be gotten on all those subjects in six months could be retained for any great length of time unless it could be used in practical work.

Senator WALSH. You conceive by a certain amount of cramming or memorizing that a man might be able to grasp a sufficient amount of knowledge on the subject to possibly pass the examination?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Do you know how the subject that you were supposed to cram for in six or eight months compared with the course at Annapolis?

Lieutenant FARNHAM. No, sir.

Senator WALSH. Whether or not they covered the same subjects, with the same knowledge, that the Government gives in four years' instruction to its students at Annapolis?

Lieutenant FARNHAM. Fundamentally; yes, sir.

Senator WALSH. So you believed you were asked to do in six months, without instructors or lecturers and without any practical experience, what Annapolis men were given four years of study and time to prepare for?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Would you have liked to remain in the Navy?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Would you remain in the Navy if an examination were given for you on aeronautics and such subjects as you have had practical knowledge and practical training and practical experience in in the Navy?

Lieutenant FARNHAM. Yes, sir; unless unforeseen circumstances prevented.

Senator WALSH. Are you leaving the Navy reluctantly?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Why?

Lieutenant FARNHAM. Well, it is kind of difficult to explain, sir.

Senator WALSH. To what extent has aviation, the possibilities of aviation and the science of aeronautics, gripped you?

Lieutenant FARNHAM. I suppose you might say it has gripped me in the same way that battleships have the higher officers in the regular Navy.

Captain WILLIAMS. I did not get that.

Lieutenant FARNHAM. I say I feel toward aviation the same way that higher officers in the Navy feel toward battleships.

Senator WALSH. Have you been happy and contented in your work?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did you have difficulty at one time and succeed in reconciling your mother that you should take this career?

Lieutenant FARNHAM. At first, yes, sir.

Senator WALSH. Has there been any of the spirit of making a contribution to your country in becoming so familiar and so well acquainted with aeronautics that you could make a career for yourself?

Lieutenant FARNHAM. Yes, sir. I believe everybody feels that way.

Senator WALSH. I have a memorandum here about the number of first pilots who were reserves or regulars. What is meant by that?

Lieutenant FARNHAM. We have already covered that.

Senator WALSH. I might ask you what you have observed about the regulars and what you have observed about the reserve officers in the aviation branch of the service.

Lieutenant FARNHAM. It seems that it may have been the fact that reserves were trained during the war when there was more or less of a happy-go-lucky spirit, and the fact that regulars were trained in peace times; but it seems to me that there is a certain spirit put into the actual flying by the people that were trained during the war and during the spirit of the war that is not put into the actual flying by people that were trained in peace times. Of course, there are exceptions.

Senator WALSH. You think that a man trained during the war has had an exceptional experience that is of value to his country?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. I do not know of any other questions.

Senator KEYES. I would like to ask the witness a question. If I recall it, you left the witness at Colon, so far as any preparation was being made for his examination. At what time did you decide, Mr. Farnham, that you did not want to take the examination?

Lieutenant FARNHAM. After we got back, sir.

Senator KEYES. When was that?

Lieutenant FARNHAM. That was in the latter part of April, 1921.

Senator KEYES. What time did you leave Colon?

Lieutenant FARNHAM. We left Colon the 19th of February, as I remember.

Senator KEYES. Between that time and the time you left Colon, until you came back, you still had an idea of taking the examination?

Lieutenant FARNHAM. Yes, sir.

Senator KEYES. But in your opinion a sufficient opportunity was not given you to prepare for the examination during that time?

Lieutenant FARNHAM. We had some opportunity at Colon, sir, but some of us had gotten behind in the lectures, owing to the nature of our work, and we had to study and ask ourselves the questions, study as best we could with text-books.

Senator KEYES. You spoke of getting behind on navigation; you missed some lectures on navigation.

Lieutenant FARNHAM. Yes, sir.

Senator KEYES. But that is only one subject.

Lieutenant FARNHAM. But about 90 per cent of the lectures were in navigation. We had only three or four on other subjects, one in electricity, one in steam engineering, and two in ordnance and gunnery.

Senator KEYES. Then do I understand you had no opportunity outside of what you might make yourself, to prepare for this examination, except in navigation and electricity; so far as the Government was concerned, you were given no opportunity in the way of lectures except on those two subjects.

Lieutenant FARNHAM. I had one lecture in steam engineering, one lecture in ordnance and gunnery, and in seamanship, I believe.

Senator KEYES. Have you ever had any experience at sea, I mean as a young man, an amateur, in and around boats? You were at Yale. Some times Yale men go on boats.

Lieutenant FARNHAM. Just ordinary sail boats, etc.

Captain WILLIAMS. Are you not at sea now?

Lieutenant FARNHAM. Yes, sir.

Captain WILLIAMS. Are you not attached to the *Shawmut*?

Lieutenant FARNHAM. I am attached to the *Wright* now, sir. What the Senator meant was before I got in the service.

Senator KEYES. I meant prior to your going into the service.

Senator WALSH. I forgot to ask you whether you were again promoted on the eve of the examinations, to Lieutenant, senior grade?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What is the date of that promotion?

Lieutenant FARNHAM. As I remember it, it is dated May 11.

Senator WALSH. So that your commanding officers thought so well of your work in the squadron that even about the time these examinations were being held, you were given additional rank?

Lieutenant FARNHAM. I can not say, sir. I understand promotions in the reserve force were done for the most part on the recommendation of the commanding officer.

Senator WALSH. I did not ask you this because it is rather embarrassing to all of us, and you do not need to make any comment unless you want to. Have you observed in your experience in the Navy a distinction being made by superior officers in the treatment of reserves and regular officers?

Lieutenant FARNHAM. There is only one example of that which I could cite that might be definitely termed a distinction.

Senator WALSH. Will you cite that example?

Lieutenant FARNHAM. This last March, when we were flying down to Guantanamo, upon our arrival at Key West we went aboard the *Wright*. From the time that the *Wright* had left Hampton Roads until it had arrived at Key West a new assignment of rooms for officers had been made. When we came aboard the *Wright* we went to the bulletin board in the ward room.

Senator WALSH. How many of you came aboard?

Lieutenant FARNHAM. One division got in in the morning, and the other division got in in the afternoon.

Senator WALSH. Some regulars and some reserves?

Lieutenant FARNHAM. Yes, sir. We went to the bulletin board to find out our new assignment to rooms. None of the reserve officers had been assigned to rooms. There was a pencil memorandum on the bulletin board which stated that no reserve officers would be assigned to rooms; they would take any room that happened to be vacant.

Senator WALSH. There were regular officers in the same squadron assigned to rooms, but the reserves had to take whatever was vacant?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Did that mean that if a regular officer came along and wanted your room, you would have to vacate it and go to some other room?

Lieutenant FARNHAM. That was entirely under the supervision of the executive officer.

Senator WALSH. Do you know of any reason while you were both doing the same duties that there should have been that distinction made?

Lieutenant FARNHAM. The only reason that I can think of for the distinction was the fact that it was practically definitely known that all the reserve officers were going on inactive duty some time before the 1st of July, and that the other officers would be regularly assigned to the ship.

Senator WALSH. Have you found among the reserve officers the feeling perhaps that can not be borne out by a statement of facts, but a feeling that an unconscious distinction is made?

Lieutenant FARNHAM. That is difficult to say for sure, sir.

Senator WALSH. That is all; I have no other questions.

Captain WILLIAMS. You have been in class 5 of the reserves how long?

Lieutenant FARNHAM. I was commissioned on March 25, 1918. I reenrolled for four years.

Captain WILLIAMS. It is my understanding that this case of discrimination in favor of the regulars as distinguished from the reserves is the only case that you can cite in that time.

Lieutenant FARNHAM. That I could cite definitely, sir.

Captain WILLIAMS. You stated that the reserves were required to prepare in seven or eight months for an examination in navigation that is given to the Naval Academy in four years.

Lieutenant FARNHAM. No, sir; I said the underlying principles of it.

Captain WILLIAMS. Do you know how long the navigation course at the academy is?

Lieutenant FARNHAM. No, sir.

Captain WILLIAMS. You were attached to the air boat squadron and in that way attached to the *Shawmut*, as I understand it.

Lieutenant FARNHAM. Last year the *Shawmut*; the *Wright* this year, sir.

Captain WILLIAMS. In that connection you must have acquired certain experience and knowledge which was not necessary for one who flew entirely over land; that is to say, you were in charge of an air boat and you acquired certain qualifications and certain experiences which were not required of a man that was flying entirely on shore.

Lieutenant FARNHAM. Yes sir.

Captain WILLIAMS. Among other things that you stated you had to contend with was landing out of sight of land. I was very much interested in that.

Lieutenant FARNHAM. No, sir; I meant to say flying out of sight of land.

Captain WILLIAMS. Well, flying out of sight of land. Does not that show the necessity for a knowledge of navigation? Does not a man who is flying from a ship, out of sight of land, require a knowledge of navigation more advanced than the man who is flying over well-located landmarks on shore?

Lieutenant FARNHAM. The only navigation that can really be done in the air is dead reckoning.

Captain WILLIAMS. I am aware of that. Suppose you make a landing and have to take a sight.

Lieutenant FARNHAM. There are no planes in the Navy that I know of now that have a sextant as part of their equipment.

Captain WILLIAMS. That is all I have to ask.

Senator WALSH. That is all.

THE CHAIRMAN. Would it be possible for the committee to have a sample of the examinations that are given at the Naval Academy put in the record, along with the sample that is given for these boys, so that the committee may have some idea as to the comparison between the examination held there and this one held for the boys? The charge has been made that this examination was made very hard, and we want to see whether it is as thorough—

Captain WILLIAMS. I understand that the chairman wants a sample of the examination in navigation given to the midshipmen upon taking the rank of ensign?

THE CHAIRMAN. Yes.

Captain WILLIAMS. And the examination in navigation given these officers for taking the same rank?

THE CHAIRMAN. Not navigation only.

Mr. SCHUYLER. You want all the questions given?

THE CHAIRMAN. I think it might be well to have the questions on all subjects, and then we get the character of the examinations.

PROGRAM OF ANNUAL EXAMINATIONS AT THE UNITED STATES NAVAL ACADEMY,
ACADEMIC YEAR 1920-21.

Days.	First class.			Second class.		
	Department.	Period.	Rooms.	Department.	Period.	Rooms.
Friday, May 20. . .	Ordnance and gunnery..	1-2	D	Electrical engineering and physics.	1-2	P N
Saturday, May 21.	Navigation.....	1-2	N	Marine engineering and naval construction.	1-2	E
Monday, May 23.	Seamanship.....	1-2	N	Ordnance and gunnery..	1-2	D
Tuesday, May 24..	Marine engineering and naval construction.	1-2	F M	Navigation.....	1-2	N R
Wednesday, May 25.	Electrical engineering and physics.	1-2	G H J	Modern languages.....	1	SR
Thursday, May 26.	Modern languages.....	1	SR			

Program of Annual Examinations at the United States Naval Academy, Academic Year 1920-21--Continued.

Days.	Third class.		Fourth class.		
	Department.	Period. Rooms.	Department.	Period.	Rooms.
Friday, May 20...	Mathematics.....	1-2 G H J	Marine engineering and naval construction.	1-2	E F
Saturday, May 21.	Electrical engineering and physics.	1-2 G H J	Modern languages.....	1	F SR
Monday, May 23...	Marine engineering and naval construction.	1-2 E	Mathematics.....	1-2	G H J
Tuesday, May 24.	Modern Languages.....	1 SR	English.....	1	G H J
Wednesday, May 25.	English.....	1 E			
Thursday, May 26.					

Periods: 1st, 8.15 to 10.35 a. m.; 2d, 10.55 a. m. to 1.15 p. m.
 Rooms: D, Dahlgren Hall; E, drawing room, Isherwood Hall; F, drawing room, Isherwood Hall; M, mold loft, Isherwood Hall; P, physics lecture room, Sampson Hall; G, H, J, examination rooms, Maury Hall; N, Navy practical workroom, Luce Hall; R, rigging loft, Luce Hall; SR, section rooms.

April 23, 1921.

A. H. SCALES,
Rear Admiral, United States Navy, Superintendent.

DEPARTMENT OF ORDNANCE AND GUNNERY.

First-class annual examination, May 20, 1921.

First part.

[First period, time allowed, 2 hours and 20 minutes.]

NOTE.—Make your answers to the point.

I.

(a) How does the director system of firing differ from the pointer system? What is "director correction," why necessary, how transmitted, and where applied? What is the use of "time-of-flight" clock and a "time-sector" clock?

(b) Describe briefly the operation of the director system in elevation of azimuth for the main battery of a battleship. How keep trained on the target theoretically when target is obscured?

II.

(a) What is the function of the plotting room? What are the variable quantities that enter into a Ford range keeper (tabulate)? How does the operator know when the estimate of the variables is practically correct? What is "target angle"? Can the same Ford range keeper be used for different caliber guns? Answer yes or no.

(b) In what way does the Mark II plotter cooperate with the Ford operator? As compared with the Mark II plotting board, what are the advantages of the Ford range keeper? Why is there a dual installation in the plotting room?

III.

(a) Show by sketch upon what principle a coincidence range finder is constructed? Upon what does the accuracy of range finding depend (tabulate)? In actual use in connection with the plotting room how often are ranges taken?

(b) What adjustments should be made to a range finder before using? In what sequence should these adjustments be made and how are they made? What is the astigmatizer and what is its function? A range finder in proper adjustment shows half the image only from each end. How is it we see a whole image, what becomes of the parts we do not see, and what prevents us from seeing them?

IV.

(a) Make a line sketch of a Mark VII Bliss-Leavitt torpedo, indicating clearly the sections into which it is divided, and show the arrangement of the motive power and the passage of the air from flask to exhaust valves. Indicate by arrows and names the valves, lines, and mechanisms through which air, fuel, etc., pass.

(b) What is the function of the starting and distance gear of the Mark VII Bliss-Leavitt torpedo (how is the machinery set in motion when the torpedo is launched and how stopped at any predetermined point)? How is the gyro spun and released? What is the pallet mechanism and what is it for? How is curved fire accomplished?

Second part.

[Second period, time allowed, 2 hours and 20 minutes.]

I.

(a) What stations are manned and how is a fire-control drill conducted? What is the value and use of the "ballistic correction"? Is any of the ballistic correction automatically made on board battleships; and if so, where?

(b) What is the final object of all naval gunnery training? How is excellence in gunfire measured? Make a table showing upon what essential elements excellence in gunfire is divided and upon what each element depends.

II.

(a) What is meant by "alignment of gun sights"? How check alignment of gun sights in a turret installation? What is "lag in range" as applied to gun sights?

(b) When firing a torpedo by means of a torpedo director, what are the known elements, what the unknown? Show by sketch how the known or estimated elements are used to obtain the unknown.

III.

(a) State briefly the duties of a spotter. What is the essential difference between spotting for the secondary battery and the main battery?

(b) Describe the use of a spot board in training spotters. What is a spotting diagram?

IV.

(a) What is a "check-off list" and of what use is it? Referring to a turret installation discuss very briefly (a) use of emery, (2) lubrication.

(b) State briefly (tabulate if possible) what should be done in case the following casualties occur: (1) Circuit breaker blows; (2) burning particles on mushroom head; (3) fouled vent; (4) telephones out; (5) missfire; (6) gas ejector system fails; (7) fire in turret; (8) broken powder bag.

NAVIGATION.

Annual examination (second half), first class, May 21, 1921.

[Time, 2 hours and 20 minutes.]

I-II.

In D. R. position (lat. 30° S., long. $10^{\circ} 30'$ E.), it is planned to compensate the standard compass by bearings of the sun between 8 and 9.30 a. m., zone time, May 21, 1921. Var from chart, 8° W.

Using one space vertical equal 5 minutes of L. A. T. and same distance horizontal equal 2° of azimuth, construct on sheet of examination paper the curve of sun's magnetic bearing, using declination of 20° N.—

What correction should be applied to watch keeping zone time to get it to L. A. T.?

What is done in getting binnacle ready to compensate? How set azimuth circle to head south (mag.) at 7.45 L. A. T.? If sun then bears 50° (p. s. c.), how compensate?

How set pelourus to head west (mag.) at 8.20 L. A. T. if the sun then bears 65° (p. s. c.) how compensate?

With ship heading S. W. (p. s. c.) at 8.35 L. A. T., sun bears 63° (p. s. c.), how compensate?

If on heading north (mag.) 2° W. dev. is found, what do?

How compensate for heeling error?

III.

A ship was swung on 16 equidistant headings by gyro compass. Ship's head by uncompensated magnetic compass was noted as follows:

Gyro.	P. s. c.	Gyro.	P. s. c.
02°-00'.....	9	90°-00'.....	83 30
22°-30'.....	26 30	112°-30'.....	106 00
45°-00'.....	44 00	135°-00'.....	131 00
67°-30'.....	63 00	157°-30'.....	157 00
180°-00'.....	183 00	270°-00'.....	297 00
102°-30'.....	209 30	292°-30'.....	318 00
225°-00'.....	241 00	315°-00'.....	336 00
247°-30'.....	271 00	337°-30'.....	352 30

If the Var. is 8° W., find the dev. of magnetic compass, and by use of Napier diagram make a deviation table for use with magnetic compass on eight equidistant headings beginning with north.

IV.

Given the following data from set of bearings of distant object, ship swinging with short scope of chain, find deviations of both compasses on headings given:

Ship's head (p. s. c.).	Distant object (p. s. c.).	Ship's head (p. steering c.).	Ship's head (p. s. c.).	Distant object (p. s. c.).	Ship's head (p. steering c.).
0°.....	106	356	180°.....	114	178
45°.....	109	41	225°.....	111	229
90°.....	112	90	270°.....	103	264
135°.....	113	140	315°.....	107	304

From deviations of standard compass determine starboard angle to nearest half degree.

V.

In swinging ship by reciprocal bearings following data was noted. Make table of deviations for headings (p. s. c.):

Ship's head (p. s. c.).	Ship from shore compass.	Shore from ship's compass.	Ship's head (p. s. c.).	Ship from shore compass.	Shore from ship's compass.
0.....	358	184	180.....	357	170
45.....	355	175	225.....	0	179
90.....	353	168	270.....	4	190
135.....	354	167	315.....	3	194

State how to compensate compass in the northwest quadrant.

Annual examination (first half), first class, May 21, 1921.

[Time, 2 hours and 20 minutes.]

I.

At sea, May 21, 1921, 8 a. m. D. R. position reckoned from previous noon is lat. 36° N., long. 58° W. Navigator observed the sun as follows: W=8h. 00m. 00s.; C W=3h. 51m. 30s.; c. slow 1m. 30s., I. C.=O; ht. of eye=25 ft. $\odot 36^{\circ} 17' 30''$ Ran from 8 a. m., on course 30° true at 10 knots until 4 p. m. At L. A. N. the navigator observed the sun on the meridian bearing S. as follows: $\odot 73^{\circ} 19'$, other data as above. At 4 p. m., the navigator observed the sun as follows: W=4h. 00m. 00s.; $\odot 33^{\circ} 59'$, all other data as above:

- (1) Plot 8 a. m. D. R. position, May 21.
 - (2) Work and plot 8 a. m. line and pick off longitude corresponding.
 - (3) Compute interval to noon.
 - (4) Plot noon D. R.
 - (5) Plot noon Nav.
 - (6) Work and plot noon line.
 - (7) Plot noon fix.
 - (8) Plot 4 p. m. D. R.
 - (9) Work and plot 4 p. m., line and pick off longitude corresponding.
- NOTE.—Disregard current after noon. Note on paper time work is completed.

SEAMANSHIP DEPARTMENT.

Annual examination, May 23, 1921; first class; first part:

I.

1. Signal: Record message and sketch call flags.
2. O. O. D., U. S. S. *Delaware*, state what action you would take under the following circumstances: (a) Under way you are about to collide with a large merchant vessel; collision unavoidable and occurs. (b) G. C. M. convenes on board. (c) You receive a draft of 50 men from the receiving ship at New York. (d) Under way in formation fog comes up. (e) An enlisted man is to be transferred to the receiving ship. (f) Ship in danger of dragging. (g) Fire reported in paint locker. (h) Man reports overtime from liberty.
3. O. O. D., U. S. S. *Virginia* in mid-ocean, acting singly, you are about to relieve the deck at 4 p. m.; state concisely and in tabular form the information you expect to receive from the O. O. D.
4. Make a table of honors with the following headings: (1) Officer to be saluted, (2) guard, (3) band, (4) music, (5) character of salute, (6) side honors. Fill in honors rendered under following circumstances: (a) Ensign boat officer in a whale boat, Vice Admiral H. with flag flying passes. (b) Same officer passes you close aboard while you are O. O. D. battleship. (c) Captain calls with pennant flying while you are O. O. D. battleship. (d) Captain passes your ship with pennant flying when you are O. O. D.
5. (a) What are the duties of the navigator in regard to the deck log? (b) What are the duties of watch officers in regard to the deck log?

II.

6. Tabulate fog signals for steam vessels under the following conditions, giving signal, instrument, and interval—First, International rules. Second, Inland rules: (a) Under way. (b) Underway, no way on. (c) Towing. (d) Being towed. (e) Not under command. (f) Anchored. (g) Give fog signals for sailing vessels.
7. In charge of a schooner under sail (5-point ship), wind northeast by east, you are heading east-southeast; another similar schooner 2 points on your starboard bow is heading north-northwest $\frac{1}{4}$ west; bearing does not change: (a) What should you do? (b) What should she do? (c) Quote rule which applies. (d) What is the compass bearing of your schooner from other?
- 8 and 9. You are senior member of a S. C. M.; what do you do when: (a) The accused pleads guilty. (b) You are called as a witness. (c) The accused objects to you as a member. (d) Accused objects to recorder.

10. You are attached to *Maryland* as watch and division officer. Who makes out your fitness report? When is it made out? What have you to do with it? If the report is unfavorable, what is done about it?

III.

11. When an officer is placed under arrest, what is done? What are the usual limits to which he is confined? What is the penalty for breach of arrest? He wishes to communicate with captain; how is it done?

12. Name the different status in which a naval vessel may be. How tell whether or not she is in commission?

13. O. O. D. *Florida* at anchor, James River, you are passed in succession by the following vessels; what honors are rendered in passing: (a) Cruiser, second rate. (b) Battleship flying rear admiral's flag. (c) French destroyer. (d) A commissioned auxiliary.

14. What is the captain's night order book? What does it contain? What are the duties of the O. O. D. regarding it?

15. What are the duties of the gunnery officer in regard to drills? Armament? Explosives? Safety orders.

IV.

16. As navigator of a ship you deem the course unsafe. Captain on bridge. What action would you take? The captain decides to hold the present course and later the ship grounds. You are tried before a G. C. M.; what evidence would you have to produce to vindicate yourself?

17. Regarding the first lieutenant: (a) What are his general duties? (b) His battle station? (c) Who relieves him when disabled? (d) What has he to do when fitting out?

18. *Nevada*, flying rear admiral A. B. C's flag, enters a British saluting port. There are at anchor a French ship flying vice admiral's flag, a British ship flying rear admiral's flag (junior to rear admiral A. B. C.), and an Italian cruiser flying a commodore's pennant. State salutes you would fire; salutes fired by others; return salutes; order of salutes; flags flown during salutes, and where.

19. (a) What is a full guard, and when paraded? (b) Guard of day? (c) When is band paraded? (d) What are side honors?

20. O. O. D. *Ranger* in a British port, you have orders to prepare to receive the American ambassador. State what preparations you would make and how you would receive him on arrival. How tell when he is approaching? What salutes are fired?

Record time completing examination.

SEAMANSHIP DEPARTMENT.

Annual examination, May 23, 1921; first class; second part.

I.

1. Signal. Record message. Interpret procedure, sign and sketch call flags.

2. *Ohio*, standing in to anchorage, is directed by *Utah* to anchor with her bearing 200° true, distant 1,000 yards, 45-fathom chain. *Utah* is riding to the tide with her anchor bearing east (ahead), distant 100 yards. *Ohio* takes bearing and distance of *Utah*. Bearing 42° true, distant 810 yards, course O. Current setting west, very weak. You desire to make a 90° turn and head against current to your anchorage. Advance 765 yards, transfer 515 yards. Find (a) data for turning, (b) data for anchoring. Assume 60 yards from bridge to hawse pipe. Neglect drift of current.

3. The fleet is steaming 145° true, speed 15 knots. *Constitution* on course 145° true, now has flagship bearing 300° true, distant 6,000 yards. She is ordered to take position on bearing 100° true from flagship, distant 8,000 yards. Captain H., of *Constitution*, decides to change course 30° to left. What speed should he steam? How long will it take?

4. As a recorder of a S. C. M. you are directed to record the sentence as follows: Reduction of rating from coxswain to seaman, second class, and solitary confinement on bread and water for five days. How would you advise the court to change this to make it a legal one and exactly how would you word the legal sentence?

5. (a) What is done in a S. C. M. when the accused pleads guilty and then makes a statement in which he avers that he is not guilty of the act specified? (b) As recorder of a S. C. M. court finds the specification proved and asks if you have any evidence of previous conviction. On his current service record you see the following entry: "U. S. S. *Utah*, 2/11/20 A. W. O. L.; sentence to lose pay amounting to \$45 approved. J. B. Smith, Comdg." Can this be introduced or not? State reason.

II.

War between United States and State X: You are in command of a United States cruiser. State what you would do under the following circumstances and give reasons for your action in each case:

6. You overhaul a fleet of neutral merchantmen under neutral national convoy and suspect one of the vessels carries contraband.

7. You search a neutral mail steamer bound for a port of the State X. Among her passengers you find a major general and an admiral of State X, traveling as private individuals.

8. You capture a neutral vessel with a cargo of contraband bound for a port of State X. You are too short handed to supply a prize crew.

9. You overhaul a public vessel of State X and after boarding her find she is bound for the Arctic regions for magnetic observations.

10. After an engagement with an enemy cruiser, which you sink, you overtake a neutral yacht and find that she has picked up several wounded officers and men survivors of sunken cruiser.

III.

11. What papers are merchantmen required to carry?

12. What is a pacific blockade? A commercial blockade? A military blockade?

13. What are the general duties of a consular officer in regard to United States merchant ships? What is the relative standing of a consular general with naval officers?

14. Differentiate between military government and martial law.

15. Explain insurgency, belligerency, and how a new state is recognized.

IV.

16. Define military law. Define naval law, and explain how it is administered.

17. Define precept, specification; state in detail what each contains.

18. Give the constitution of a summary court; a deck court.

19. What punishments may a deck court award?

20. What are the classes of errors in charges and specifications? Under what circumstances may each class be corrected and by whom?

Record time completing examination.

DEPARTMENT OF MARINE ENGINEERING AND NAVAL CONSTRUCTION.

Naval construction (Part I), Tuesday, May 24, 1921.

[Time allowed, 2 hours 20 minutes.]

I.

On attached diagram of ship, constructed since 1913, fill in correct names of decks (10) indicated by letter. Also fill in proper letter and number for compartments (13) indicated by X.

II.

(a) Tabulate the four methods of obtaining water-tight subdivisions in a warship. What is a composite ship? A sheathed ship?

(b) Define the following terms: (1) Collision bulkhead, (2) equalizing pipe, (3) paint board, (4) exfoliation, (5) stapling, (6) deck stringer, (7) plenum system (of ventilation), (8) doubling plates.

III.

(a) Give the following information relative to hull boards: (1) By whom appointed, (2) how constituted, (3) duties, (4) contents of report (tabulate).

(b) Make sketch of vertical keel in side view and in section, showing and naming all plates or parts that touch it or are part of it. Side view to show junction between two lengths of vertical keel plate and between two lengths of frame bar. Section view to show nonwater-tight frame joining keel.

IV.

(a) Sketch the manner in which a strut is fastened to the hull.

(b) By means of a PV and a TE diagram make a comparison of work done by a turbine in expanding steam to a low pressure, with that done by the reciprocating engine in expanding the steam to a pressure within practical limits.

V.

Make a complete line sketch of the Radojet air ejector system as installed on board ship. (Sketch to include all working parts.) Name each part and indicate by arrow the course of steam and water.

FIRST CLASS ANNUAL EXAMINATION,

DEPARTMENT OF MARINE ENGINEERING AND NAVAL CONSTRUCTION,

NAVAL ENGINES—PART II.

TUESDAY, MAY 24, 1921.

[Time allowed, 2 hours 20 minutes.]

I.

(a) 1. Explain why in direct-connected Parsons turbine the dummy piston has diameter less than that of rotor, whereas in geared or cruising turbines the dummy piston covers whole end of rotor.

2. Show by sketch method of securing Parsons blading at root and tip.

(b) 1. What effect would leaky shaft gland have in (a) H. P. turbine and (b) L. P. turbine.

2. Explain how increasing volume of steam is allowed for in Parsons turbine and in Curtis turbine.

3. In which type of turbine would distortion of blading be most serious? Give reason.

4. Why is distortion at high temperature most likely to occur in a stern turbine?

II.

(a) 1. The *Nevada* (Curtis, direct connecting) has steam path of 75 rows of blading, whereas the *New Mexico* (Curtis, elec. red) has only 11 rows. Explain principle by which it is possible for *New Mexico* to extract approximately same full power from steam as *Nevada*.

2. State the advantages and disadvantages of superheat for turbines.

(b) 1. Sketch a diaphragm for Curtis turbine.

2. How are gear teeth lubricated? How do we know a bearing is receiving proper supply of oil? How is oil kept from entering turbine casing? How is water separated from oil in the oil settling tanks?

III.

(a) State relative advantages of mechanical and electric reduction gearing as regards following points: (1) Efficiency of full power, (2) efficiency of cruising speeds, (3) efficiency when backing, (4) backing power, (5) relative weight and space, (6) variability of reduction ratio, (7) ease of reversing, (8) adaptability to water-tight subdivision.

(b) Make plan sketch of reduction gears, Wadsworth type, naming all important parts.

IV.

Make diagram sketch of forced-lubrication system for battleship, naming all parts and pipe leads. Show direction of flow by arrows.

V.

(a) State routine and precautions on closing down a turbine and when idle in port thereafter. (Tabulate.)

(b) What is "wing blading," and why used? What is "cavitation"? What is an "expansion" in a Parsons turbine? What is a "stage" in a Curtis turbine? What are "leak offs"?

PART I, RADIO.

DEPARTMENT ELECTRICAL ENGINEERING AND PHYSICS.

MAY 25, 1921—8.15 A. M.

[Time allowed, 2 hours and 20 minutes.]

I.

(a) What are electrons? (b) In regard to the temperature, what is necessary in order that electrons may escape from a metal? (c) Why is a filament battery used with vacuum tubes? (d) How is it possible to know which are the terminals of the filament, grid, and plate of a vacuum tube when in its socket so that proper connections can be made?

II.

(a) Sketch a vacuum tube detector circuit (including antenna circuit) showing grid condenser, grid leak, and telephones. Indicate polarities of batteries. (b) Sketch receiving circuits (including antenna circuits using 2 vacuum tubes, the first tube to detect the signal using grid condenser and grid leak and the second to give one step of audio frequency amplification, transformer action.

III.

(a) (b) Sketch a simple practical form of radio compass using a vacuum tube detector, with grid condenser, grid leak, and telephones. (c) Referring to the sketch (a) (b) how would this set be tuned to receive a signal of wave length 800 meters? (d) After being tuned how would the above set locate the direction of the transmitting station?

IV.

(a) Name one method for producing damped oscillations for radio. (b) Name three methods for producing undamped (C. W.) oscillations for radio (omit radio frequency spark). (c) Of what does an oscillating circuit consist? (d) What sets are used for low-power work in the fleet?

V.

(a) Sketch vacuum tube generator circuit, with oscillating circuit in the plate circuit, transformer action to grid circuit. (b) What determines (approximately) the wave length of the oscillations of this set? (c) What would start the set oscillating? (d) How is it possible to know whether the set is oscillating (acting as a generator)?

VI.

(a) Under what conditions does a parallel circuit of L and C offer the highest impedance to a certain wave length? (b) Show how circuits of L and C could be combined to accept certain wave lengths and reject others. Show detector tube with its telephones, grid condenser, and grid leak. (c) What are the duties of the communication officer in regard to radio? (d) In what way does radio assist the gunnery officer?

VII.

(a) Sketch circuits used for autodyne receiving (including antenna circuit) (b) What is meant by the words "tickler coupling"? (c) Sketch the circuits of a wave meter as used to produce damped oscillations of a known wave length (show no unnecessary apparatus). (d) Sketch the circuits of a wave meter as used to measure the wave length of oscillations in an external oscillating circuit. (Show no unnecessary apparatus.)

VIII.

(a) What is meant by modulation? (c) Sketch a radio frequency (carrier) wave before and during modulation, indicating clearly the radio frequency wave and the audio frequency wave. (c) When two vacuum tubes are used in the usual radio telephone set, what is each tube called, and in general what is the function of each? (d) What kind of detecting apparatus is used for radio telephone signals?

IX.

Given $\lambda = 1885\sqrt{LC}$.

Assume that an antenna has a fundamental wave length (the wave length of the oscillations when no added inductance or capacity is inserted in the antenna circuit) of 515 meters. In order to tune to a signal of 1,545 meters a part of the loading coil which equals 0.32 millihenries was added to the antenna-ground circuit. (a) What is the inductance of the antenna? (b) What is its effective capacity?

X.

Assume that an antenna has a fundamental wave length of 455 meters and has an antenna inductance of 0.081 millihenries and an effective capacity of 0.0009 microfarads. When receiving a signal of 377 meters what value of the antenna series condenser has been placed in the antenna-ground circuit?

PART II.

MAY 25, 1921—10.55 A. M.

[Time allowed, 2 hours and 20 minutes.]

I.

(a) A single-phase transformer is wound with four coils—two primary and two secondary. It is designed to give a secondary voltage of 110 or 220 when the primary voltage is either 1,100 or 2,200. Sketch connections to the line in each case for full power. (Four sketches required.) (b) Sketch a three-phase transformer whose primary is Y connected to the line and whose secondary is delta connected to its line.

II.

(a) Show by sketch how two-phase power can be obtained from a three-phase line. Indicate on sketch the relation between the number of turns in each primary coil. Also indicate the relation between the number of turns in each secondary coil. (b) (1) Name the power losses of a transformer. (2) What is the advantage of the Y connection for transformers; of the delta connection?

III.

A single-phase transmission line connects a generating station to a distributing station 100 miles away. The resistance per mile of wire is .258 ohm, and the inductive reactance per mile of wire is .728 ohm. The power delivered to the distributing station is 10,000 kilowatts at 100,000 volts and at 100 per cent power factor. Find (a) and (b) voltage at generating station. (c) Power factor at generating station. (d) The efficiency of transmission.

IV.

(a) What is a booster? (b) Sketch connections of a booster to a power line. (c) What is a balancer? (d) Sketch connections of a shunt-wound balancer set with crossed fields.

V.

(a) Sketch a single-phase transformer in which the leakage reactance is reduced to a minimum. (b) State by equations the relations between numbers of turns, voltages, and currents in primary and secondary windings. State the power equation of a transformer. (Neglect losses.) (c) Illustrate by the aid of sketches the law of precision. (d) State by what means the Sperry compass is corrected for: (1) Latitude, (2) speed of ship and latitude, (3) rolling and pitching, (4) by what means is damping accomplished?

VI.

(a) Sketch and explain how the action of the ball tends to make the Sperry compass point to north. Assume that compass is in north latitude. (b) Sketch and explain how the repeaters are made to follow the master compass.

VII.

Make four sketches of a two-pole, two-phase alternator connected to a two-pole, two-phase induction motor, as follows: (a) Alternator and motor field revolving in same direction; (b) Alternator field revolved 90° in direction of rotation from (a). (c) Alternator and motor fields revolving in opposite directions. (d) Alternator field revolved 90° in direction of rotation from (c). Sketch must show (1) polarity of alternator field, (2) direction of e. m. f. in inductors, (3) connections between alternator and motor, (4) polarity of polar regions of motor field, assuming them to be actual poles revolving about the rotor.

VIII.

(a) If on the *Jupiter* the rotor resistances were left in while cruising at steady speed (1) the percentage of motor slip would increase above normal. Why? (2) The efficiency would decrease. Why? (3) The rheostats would heat. Why? (4) The torque would decrease below normal. Why? (b) If the e. m. f. applied to the motor stators of the *New Mexico* were increased above normal and alternator speed were constant (1) the efficiency would be less than normal. Why? (2) The starting torque would be greater than normal. Why?

IX.

(a) Considering turbine efficiency only, explain why maximum economy can be obtained on the *New Mexico* at 15 knots using 1 two-pole alternator and 36 poles on motor, and also at 21 knots using 2 alternators and 24 poles on motors (15 knots equal one-half of full power). (b) A series circuit has a resistance of .004 ohm and an inductance of .000239 henry. What is the power factor when an alternating e. m. f. of frequency 2 is applied to this circuit?

X.

(a) On the *New Mexico* why must the exciters be cut out when shifting connections to motors or alternators? (b) How are small changes of speed made on an electrical-driven ship? (c) Sketch a slot of a squirrel-cage rotor having a double winding. Indicate which has low resistance, high resistance, high inductance, and low inductance. (d) Explain from your knowledge of self-induction why one winding of (c) should have more inductance than the other.

DEPARTMENT OF MODERN LANGUAGES.

MAY, 1921.

FRENCH.

I.

(a) Give the following verb forms:

1. écrire, present: je, ils.

2. dire, imperfect: tu, il.
3. voir, future: Il nous.
4. mettre, p. indef.: je, il.
5. vouloir, cond.: je, vous.
6. partir, p. indef.: il, elles.
7. boire, imperfect: je, vous.
8. s'asseoir, p. indef.: je, elle.

(b) Write a sentence of at least eight words with the following:

1. aller, in the conditional.
2. venir, in the future.
3. savoir, in the present subjunctive.
4. faire, in the imperfect.

II.

Translate the following into French:

1. What are you thinking of? Who is making that noise?
2. The uncle with whom I lived is dead.
3. There is somebody at the door. Something has fallen.
4. I am going to get some shoes.
5. If he had time, he would finish his work.
6. If he is here to-morrow, I shall give him the money.
7. He wounded himself. He wounded his hand.
8. I ask that you pay me immediately.
9. The doctor forbids me to go out.
10. The fleet has just arrived from Guantanamo.

III.

Translate into English the following, taken from L'Allemagne Désarmée:

Si étonnant que cela puisse paraître, la fabrication de la coque n'est qu'une petite affaire dans la construction d'un sous-marin. La coque, c'est un certain nombre de tôles de formes appropriées faciles à faire pour les puissantes usines métallurgiques de la Ruhr ou de la Haute-Silésie, faciles à monter pour les chantiers navale.

Ce qui retarde construction d'un sous-marin, ce sont des pièces accessoires délicates: les moteurs,—ces fameux Diesel que nul n'a vraiment, réussi à construire en dehors des usines d'Augsbourg—les accumulateurs électriques, les kiosques surmontant le navire, et les périscopes.

Les accumulateurs électriques destinés à permettre la marche en plongée sont d'un modèle tout à fait particulier. Ils doivent, en effet, ne pas être gênés par le tangage et le roulis, ni mettre des vapeurs acides. Ce sont des "accus" tout à fait spéciaux, faits à Hagen par une société spéciale. Or, la fabrication continue, malgré la protestation de la commission Nollet.

IV.

Assuming that you are having a conversation with a French officer who does not understand English, write an article of at least 150 words in French on either the present naval conditions or the Carpentier-Dempsey fight.

MAY 26, 1921.

SPANISH.

I.

Verbs: Give the conjugation of the following verbs in the tenses indicated (all persons):

Gerundio.....	Venir.	Subj. presente	Traducir.
Indicativo presente.....	Colgar.	Subj. imperfecto (1*).....	Tener.
Indicativo Imperfecto.....	Ser.	Subj. imperfecto (2*).....	Salir.
Indicativo Pretérito.....	Izar.*	Subj. perfecto.....	Hacer.
Indicativo Futuro.....	Decir.	Subj. pluscuam perfecto.....	Decir.
Condicional.....	Venir.*	Condicional perfecto.....	Explicar.
Imperativo.....	Acostarse.*		

Write three sentences of at least eight words with verb and tense indicated by (*).

II.

Translate into Spanish :

1. This book belongs to my sister ; that one is mine.
2. When I was writing the letter, she came in to bring me the money.
3. If I were his friend, I would be there with him.
4. There will be a game to-morrow if the weather is good.
5. Let us go to bed before the captain sees us.
6. The doctor told me to go to bed at once.
7. It is possible that my brother will come to-day.
8. I would go to bed if I had the time.

III.

Translate into English :

Hacia febrero de 1569 salió Cervantes de España con dirección a Roma, acompañando al cardenal Aquaviva, llegado del Papa. Este hecomarca un nuevo rumbo en la vida del gran escritor, y es el principio de una infinita serie de desdichas.

Ávido de gloria, pues su pesadilla constante fué la inmortalidad, que buscó por distintos caminos, despidióse del cardenal, al que siempre recordó con afecto, y entró a servir, quizás primero bajo las banderas pontificias, acaso sentando desde luego plaza en las filas españolas, que esto no está bien averiguado, aunque sí consta que en el propio año de 1570 formaba parte de la compañía del capitán Urbina, la cual fué destinada a la flota que iba a combatir al turco. El 7 de octubre de 1571 se daba la memorable batalla de Lepanto. Cervantes, siempre soldado, yacía en un camarote de la galera de Doria, La Marquesa, inutilizada, al parecer, para el combate, por las fiebras que padecía. Llegado el instante de pelear, solicitó de su capitán el puesto de mayor peligro, y a cuantos jefes y compañeros querían disuadirle les decía : " En cuantas ocasiones de guerra se han ofrecido hasta hoy a S. M., he servido como buen soldado ; y así ahora ho haré menos, aunque esté enfermo y con fiebre."

IV.

Assuming that you are talking to a Spanish officer who is unable to understand English, write a composition of not less than 200 words on the rich men of the United States (Eastman, Carnegie, Rockefeller, Ford, Keith) and how some of them made their money.

Senator WALSH. I think there was some testimony that this examination was of the general character that is given in promoting men from ensign to lieutenant.

Admiral BRYAN. Exactly, only that one subject was left out.

Senator WALSH. The testimony is that it is even more than is given to the midshipmen, because it is of the type that is given to ensigns that are seeking promotion to lieutenants, junior grade.

Admiral BRYAN. On the contrary, this was less than that given to the midshipmen.

Senator WALSH. Were some of these questions similar questions to those given men applying for promotion to lieutenant commander?

Admiral BRYAN. Yes, sir.

Senator WALSH. Some of the exact questions?

Admiral BRYAN. They were exactly similar in some of the subjects to those given for lieutenant commander.

Captain WILLIAMS. I would like to state that I expected to have a witness here to testify about Akron, Ohio. Apparently he does not know anything about it, so I will supply the information at the earliest possible moment.

TESTIMONY OF ENSIGN EDGAR WILLIAM SHEPPARD, UNITED STATES NAVY.

(The witness was sworn.)

Senator WALSH. Will you state your full name?

Ensign SHEPPARD. Edgar Williams Sheppard.

Senator WALSH. Where is your residence?

Ensign SHEPPARD. Washington, D. C.

Senator WALSH. You are a married man?

Ensign SHEPPARD. Yes.

Senator WALSH. With a family?

Ensign SHEPPARD. One child.

Senator WALSH. What is your age?

Ensign SHEPPARD. Thirty-four.

Senator WALSH. Where were you working and living prior to the outbreak of the war?

Ensign SHEPPARD. I was superintendent for the Ford Motor Co., Washington Branch, Washington, D. C., living in Washington, D. C.

Senator WALSH. What was your salary or income in that position?

Ensign SHEPPARD. Approximately \$5,000 a year.

Senator WALSH. Up to the time of the outbreak of the war—what was your age at that time?

Ensign SHEPPARD. Thirty years of age.

Senator WALSH. What had been your training and education in motors or in engineering and other subjects that were of value to the country during the war?

Ensign SHEPPARD. Gas-engine expert.

Senator WALSH. You had become a gas-engine expert?

Ensign SHEPPARD. A gas-engine expert and production manager or expert.

Senator WALSH. Did you enter the service at the outbreak of the war?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. When?

Ensign SHEPPARD. May 11.

Senator WALSH. May 11, 1917?

Ensign SHEPPARD. In 1918, just as soon as I could be relieved from my duty with the Ford Motor Co. and get a man qualified to take over my work.

Senator WALSH. We went into the war in April, 1917.

Ensign SHEPPARD. Yes, sir.

Senator WALSH. And you went in in May, 1918?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. A year after?

Ensign SHEPPARD. Yes, sir; just as soon as I could be relieved from the Ford Motor Co. They carried large Government contracts, and I was unable to get away.

Senator WALSH. In what capacity did you enter the service?

Ensign SHEPPARD. I entered the Navy as machinist's mate, second class.

Senator WALSH. Where were you assigned to duty?

Ensign SHEPPARD. I was assigned to Pelham Bay. I was selected four weeks later to attend Columbia University.

Senator WALSH. Did you take a course at Columbia University?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. In what?

Ensign SHEPPARD. Gas engineering, or aviation engineering, they called it.

Senator WALSH. So you at once began to take up aviation engineering?

Ensign SHEPPARD. I was selected by the department to do it.

Senator WALSH. After you got through at Columbia, where did you go?

Ensign SHEPPARD. I was commissioned ensign and transferred to the Packard Motor Co. at Detroit.

Senator WALSH. You volunteered in the war?

Ensign SHEPPARD. Yes, sir; I enlisted.

Senator WALSH. You gave up this \$5,000 salary for what kind of a salary when you first went into the service? How much were you paid when you first went into the service?

Ensign SHEPPARD. About \$54 a month. I do not recall just exactly the amount.

Senator WALSH. After you got through Columbia where did you go?

Ensign SHEPPARD. I was transferred to the Packard Motor Co., on the Liberty motor.

Senator WALSH. To do what?

Ensign SHEPPARD. To continue training.

Senator WALSH. Training for what?

Ensign SHEPPARD. For aircraft engineer.

Senator WALSH. How long did you remain at the Packard Motor Co.?

Ensign SHEPPARD. Three weeks after inspection and then selected by the Bureau of Navigation as commanding officer of that unit.

Senator WALSH. Of that unit?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. What unit was it? How many were in the unit, and what were they doing?

Ensign SHEPPARD. The Liberty Motor School carried on the advanced training of graduates of Columbia University.

Senator WALSH. So after the young men had graduated at Columbia, they were sent to this school?

Ensign SHEPPARD. Yes, sir; for further training.

Senator WALSH. For further training in motors?

Ensign SHEPPARD. Yes, sir; Liberty motors especially.

Senator WALSH. And you had charge of that unit?

Ensign SHEPPARD. I had charge of the school; yes, sir.

Senator WALSH. How long did you have charge of that school?

Ensign SHEPPARD. From August 20, 1918, to January 13, 1919, until the school was closed.

Senator WALSH. Where was this school located?

Ensign SHEPPARD. Detroit, Mich.

Senator WALSH. How many students did you have under training during that period of time?

Ensign SHEPPARD. I had an average of 35 students, every three weeks, chief petty officers and commissioned personnel.

Senator WALSH. They were all under your direction?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. What was the course of instruction that was given these men? Did you plan the form and kind of instruction?

Ensign SHEPPARD. I outlined the course, and it was approved by the Bureau of Navigation training section.

Senator WALSH. From this school where did you go?

Ensign SHEPPARD. From that school I was transferred to the Great Lakes Naval Training Station, superintendent of Naval Aviation Mechanics School.

Senator WALSH. What department of the Navy transferred you there?

Ensign SHEPPARD. The Bureau of Navigation.

Senator WALSH. State just what was your rank there, and your position.

Ensign SHEPPARD. I was transferred in the rank of lieutenant, junior grade.

Senator WALSH. At this time you had been promoted to lieutenant, junior grade?

Ensign SHEPPARD. Yes, sir; on the recommendation of Admiral Moffett, under whom I served on detached duty.

Senator WALSH. You became in charge of the aviation training school for enlisted men?

Ensign SHEPPARD. For enlisted personnel assigned to aviation duty.

Senator WALSH. From that time up to what time did you have charge of this work?

Ensign SHEPPARD. Up until December 22, 1921.

Senator WALSH. Two years practically?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. So for two years every young man who became an enlisted man and was assigned to aviation duty passed through a course of instruction at the school of which you were in charge?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. Who directed the courses and the form and manner of instruction at that school?

Ensign SHEPPARD. I had complete charge of the instruction activities. The personnel involved was approximately 3,000 men.

Senator WALSH. So that you have trained under your direction 3,000 enlisted men for minor activities in aviation of the Navy?

Ensign SHEPPARD. Yes, sir. I believe it has been admitted by the Bureau of Navigation that 75 per cent of the men now in the naval aviation enlisted personnel graduated from that school.

Senator WALSH. What was the course that these young men got?

Ensign SHEPPARD. Thirty-six weeks, not only machinist, but quartermaster, riggers' work, and carpentry, and some gunnery work.

Senator WALSH. Did you have a corps of officers or instructors under you direction?

Ensign SHEPPARD. One commissioned officer, Lieut. Ralph M. Parsons, who was a supervisor, and one warrant officer.

Senator WALSH. That is all you had to assist you?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. Did you yourself give lectures?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. In what courses did you lecture?

Ensign SHEPPARD. Gas-engine theory.

Senator WALSH. These young men were to be trained to take care of the engines of the planes that were used by the officers in the Navy?

Ensign SHEPPARD. Yes, sir; the men engaged in the maintenance of aircraft engine equipment.

Senator WALSH. For your work in that department what commendations or recommendations have been bestowed upon you by the Navy Department?

Ensign SHEPPARD. I have four letters of commendation.

Senator WALSH. Will you let me see those, please? By the way, that school was abandoned, was it not?

Ensign SHEPPARD. The school is now in operation, but very few men are under instruction there.

Senator WALSH. Was the number of men that were required in the personnel of the aviation section filled at the time you left the school?

Ensign SHEPPARD. Yes, sir. I believe the Bureau of Navigation claimed the enlisted personnel of the naval aviation corps was overcomplemented. Here are the letters you referred to.

Senator WALSH. I will read these letters to the committee.

(The letters referred to, read by Senator Walsh, are here printed in full, as follows):

FEBRUARY 23, 1922.

From: Ensign E. W. Sheppard.

To: Chief of Bureau of Navigation.

Via: Chief of Bureau of Aeronautics.

Subject: Reconsideration of examination papers and record of service, examination of May 17, 1921.

1. In view of my record of service in the United States Naval Reserve Force as a lieutenant, I request a reconsideration of my examination of May 17, 1921, for commission in the Regular Establishment.

2. I feel that the class of service which I have rendered in connection with the establishment and operation of the Aviation Mechanics School, Great Lakes, Ill., will clearly show that I am fitted to hold satisfactorily a commission of similar rank and grade in the Regular Navy.

3. I am permanently assigned to duty as assembly and repair officer aboard the U. S. S. *Wright*. This is an assignment of great responsibility and one to which an officer of the rank of lieutenant is normally assigned.

4. At this time I am performing temporary duty in the Bureau of Aeronautics, preparing engineering data to be compiled in the Bureau of Aeronautics Manual.

5. The attached letter is self-explanatory and is submitted for consideration.

[First indorsement.]

FEBRUARY 27, 1922.

From: Chief of Bureau of Aeronautics.

To: Chief of Bureau of Navigation.

Subject: Reconsideration of examination papers and record of service, Examination of May 17, 1921.

1. Forwarded, recommending approval.

W. A. MOFFETT.

UNITED STATES NAVAL TRAINING STATION,
Great Lakes, Ill., February 6, 1922.

MY DEAR MR. SHEPPARD: I have received your letter of the 3d instant and am very glad that you are pleased with your new assignment, and I am sure that you will be of great assistance in the engineering section of the Bureau of Aeronautics.

I am delighted that you have paved the way for a reconsideration of your case before the examining board, and it gives me great pleasure to state the following, which you may present with your request for reconsideration:

Ensign E. W. Sheppard served with me at the Great Lakes Naval Training Station as a lieutenant, Naval Reserve Force, for more than one year as superintendent of the Aviation Mechanics' School. During this period Lieutenant

Sheppard made an unqualified success of this school and, in addition, equipped and organized the Machinist's Mates (General) School, and by his own personal efforts and untiring work obtained and set up the necessary equipment.

Lieutenant Sheppard performed, in addition to the above duties, a considerable amount of important military duties, for which he was eminently well fitted, being an officer of splendid character and of considerable military experience, and with a highly developed idea of leadership of men which enabled him to obtain always the maximum cooperation of men serving under his command.

The outstanding feature, perhaps, of these additional duties performed by Lieutenant Sheppard was that involved in the command of the detachment in camp at the Chicago City Pier in the summer of 1921 during the period of Chicago's Pageant of Progress. This command consisted of a camp of about 700 men and was, without question, one of the most creditable showings ever made by the Navy in this particular. The success and efficiency of this feature of the Pageant of Progress was due almost entirely to the able and efficient manner in which Lieutenant Sheppard administered his command.

It is to be regretted that Lieutenant Sheppard had had no sea experience when he came up for examination for permanent commission. I do not hesitate to state that, aside from this lack, Lieutenant Sheppard was one of the best officers that it has been my pleasure to have under my command.

Give my best regards to my many friends in the bureau, and with kindest personal regards, I am

Very sincerely, yours,

D. W. WURTSBAUGH,

Captain, United States Navy, Commandant.

Ensign E. W. SHEPPARD, United States Navy,
*Engineering Section, Bureau of Aeronautics,
Navy Department, Washington, D. C.*

UNITED STATES NAVAL TRAINING STATION,
Great Lakes, Ill., May 21, 1921.

From: Local Supervisory Examining Board,
To: President Naval Examining Board, Navy Department, Washington, D. C.
Subject: Lieut. Edgar W. Sheppard, U. S. N. R. F.-5; recommendation for special consideration by naval examining board.

1. Due to the special aptitude and desirability for retention in the United States naval service of Lieut. Edgar W. Sheppard, U. S. N. R. F.-5, the supervisory examining board feels it to be its duty to recommend this officer for the special consideration of the naval examining board.

2. The members of the supervisory examining board have personally observed this officer's actual performance of duty, military manner and bearing, education, leadership, and officerlike qualities, and consider him especially well fitted for the duties of an officer in the line of the Navy.

3. The supervisory examining board considers that the retention of this officer would be a distinct gain to the United States Naval Service.

W. F. JACOBS,

Commander, United States Navy, President.

A. S. CARPENTER,

Lieutenant Commander, United States Navy, Member.

J. H. HOLT,

Lieutenant Commander, United States Navy, Member and Recorder.

From: Engineer Officer.

To: Commandant.

Subject: Eagle Boat No. 25, removal of machinery.

Reference: (a) Comdt. 1st end. 33 of 12/10/20.

1. The commandant in indorsement, reference (a), directed that the engineer officer report when the bureau's instructions, relative to the removal of material from Eagle boat No. 25, had been complied with.

2. The commandant is advised that no work, under the cognizance of the machinery division, was done in connection with the removal of this machinery for transfer to the Great Lakes Training Station. However, Lieut. E. W.

Sheppard, U. S. N. R. F., who was sent here to have charge of the work, has consulted with the engineer officer regarding the removal of the material.

3. The expeditious manner in which the removal of this machinery was accomplished, without direct expense to any appropriation, is considered to be highly commendable and the credit for accomplishing it is due to the efficiency of Lieut. E. W. Sheppard, U. S. N. R. F., who had the entire work in charge.

Y. N. WILLIAMS.

MAY 3. 1919.

From: Commandant.

To: Bureau of Navigation, Navy Department, Washington, D. C.

Subject: Recommendation for promotion of Lieut. (Junior Grade) E. W. Sheppard, U. S. N. R. F.-5.

1. It is recommended that the above-named officer be advanced from his present rank to that of lieutenant, U. S. N. R. F., class 5.

2. Lieutenant Sheppard is now detailed as superintending instructor of the engine maintenance courses of the Aviation Mechanics School. The officer in charge of the Aviation Mechanics Schools considers him one of the most valuable officers in the department. He combines initiative, willingness to assume responsibilities, executive ability, and general officerlike qualities in such a way as to make his services of the utmost value to the school. Lieutenant Sheppard has previously rendered great services to the Navy in connection with the construction of Liberty motors from rejected parts, and has been commended for this by the Office of Naval Operations (Aviation).

3. This promotion is recommended not only because this officer deserves recognition, but in order that he may have sufficient rank to properly discharge the many duties to which he is assigned. He has taken the examination for qualifications in the Regular Navy with a temporary commission, and has expressed willingness to remain in the service.

E. E. WILSON.

This officer is superintending instructor of the engine maintenance force, and in addition is performing general duties of an executive nature. He is a most excellent officer in every respect. His military appearance and bearing are of the highest. He is possessed of zeal, initiative, and the ability to co-operate with others to a very high degree. I consider him one of the best officers of his grade in the naval service. He is strongly recommended for confirmation in his present grade.

E. E. WILSON.

Lieutenant Commander, United States Navy.

UNITED STATES NAVY YARD,
Philadelphia, Pa., December 14, 1920.

To: Commandant.

Lieut. E. W. Sheppard, U. S. N. R. F., states that he has completed the removal of machinery and other articles from Eagle No. 25 in so far as such material was desired by the Great Lakes Naval Training Station.

In accordance with the commandant's instructions, the hull division has assisted Lieutenant Sheppard and the force under his command in this matter, particularly in connection with the providing of ballast for the vessel, removal of engine hatch, deck plating over boiler room, etc. Lieutenant Sheppard has kept in close touch with the construction officer and has consulted with officers of the hull division frequently in connection with this work.

The construction officer has been much impressed with the excellence and dispatch of the work performed by Lieutenant Sheppard and the force under his command and suggests that the matter be brought to the attention of the commanding officer of the Great Lakes Naval Training Station.

W. P. ROBERT.

Captain, C. C. United States Navy, Construction Officer.

Senator WALSH. Where were you at the time that notice was given about these examinations?

Ensign SHEPPARD. Great Lakes, Ill.

Senator WALSH. As superintendent of the station there?

Ensign SHEPPARD. Superintendent of the Aviation Mechanics School.

Senator WALSH. What, if anything, was done to establish a school there, and when was the school established, for this examination?

Ensign SHEPPARD. To the best of my knowledge, it was established in October. A course was outlined and officers assigned to act as instructors. In fact, I was assigned as an instructor myself, for the instruction of other officers.

Senator WALSH. In what subject were you assigned?

Ensign SHEPPARD. Gas engineering, especially.

Senator WALSH. How long did that school continue.

Ensign SHEPPARD. That school continued, in a more or less hap-hazard fashion, up to within about three months of the time of the examination.

Senator WALSH. It went on, in more or less hap-hazard fashion, for about six or eight months?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. Will you tell us how the school was run? Give the committee a picture of it.

Ensign SHEPPARD. A great many officers were assigned there as instructors, but by reason of orders they were detached and other officers were assigned and assumed the duties of instructors. But the course was not properly outlined, was not detailed; there was no direct syllabus compiled. It was so disgusting to some of the officer personnel on the station—that is, the regular Navy men—that Lieut. Commander E. E. Wilson, who is recognized as one of the best engineers in the service, assumed charge of the school and conducted the courses for about two months, until he was detached and ordered aboard the U. S. S. *Wright*. For six weeks prior to the examination there was no school at all.

Senator WALSH. That is, the men were being shifted all the time?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. Assigned as instructors and then ordered away, and another man would come in, and there was no continuity?

Ensign SHEPPARD. That is true.

Senator WALSH. What time was assigned for instruction at the lectures?

Ensign SHEPPARD. At the beginning of the course the time allotted was from 6 to 9 p. m. at night. A great many officers were not living at the station, and it was quite a hardship to get to the station and undergo this instruction. It was found impossible to conduct the course in this way, and the commandant ordered that the course be run from 3 to 5.

Senator WALSH. How many days a week, if you remember, were the courses given?

Ensign SHEPPARD. About four days a week.

Senator WALSH. Were different subjects presented?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. Did you attend this school?

Ensign SHEPPARD. I did.

Senator WALSH. What were you able to get out of it?

Ensign SHEPPARD. I was able to get very little out of it.

Senator WALSH. I ought to say that the lieutenant passed the examination and was given the grade of ensign, so he has not necessarily the grievance that the other men have who failed. Pardon me; go ahead.

Ensign SHEPPARD. I got quite a lot out of the course for awhile, but it was impossible for any person who had never had sea-going experience to qualify in that examination. I know for a fact that the navigation question given the reserves and temporaries in the examination of May 16 was the one given to the senior-grade lieutenant graduates of Annapolis just the week before, at Great Lakes.

Senator WALSH. That is very important; let us have that again, Lieutenant.

Ensign SHEPPARD. I know that the question in navigation—the problem, I should say, in navigation—which was given at the examination of May 16 to the reserve officers and temporary officers qualifying for the regular Navy was given to the lieutenants senior grade graduates of the Academy.

Captain WILLIAMS. May I ask what question that was?

Ensign SHEPPARD. The problem in navigation.

Captain WILLIAMS. What problem?

Ensign SHEPPARD. The practice day's work.

Captain WILLIAMS. Time sight?

Ensign SHEPPARD. Yes, sir; the day's work.

Captain WILLIAMS. Is there any navigation examination on earth that does not contain the time sight?

Ensign SHEPPARD. Not that I know of. I am not sufficiently familiar with navigation to answer the question.

Admiral BRYAN. That question is asked on examination for ensign to junior lieutenant.

Senator WALSH. It was the same question given two weeks before. The point he makes is that the men who never had had sea experience, never been at Annapolis, got the same problem in navigation that the men were given who were seeking to be promoted to lieutenant commanders.

Admiral BRYAN. You could hardly give an examination on navigation without covering such an elemental question as that.

Senator WALSH. I am not saying that. I say if it is a fair question to a man who has graduated from Annapolis or who had been 8 or 10 years in the Navy, it is self-evident it would not be a fair question for men who had never been at Annapolis or to sea.

The CHAIRMAN. That would depend on whether it was a question which was absolutely essential for a person to know holding a position of responsibility.

Captain WILLIAMS. The question of an examination in navigation is another subject. But you can not hold an examination in navigation without the primary principle which is given to an ensign, to a junior lieutenant, and to a lieutenant. It is a fundamental question.

Senator WALSH. If it was absolutely necessary to know in navigation, why did you allow these men to throw it out and take the subject of aeronautics? Why was navigation any more necessary than gunnery or any other subject?

Captain WILLIAMS. The circumstances of which Lieutenant Sheppard is testifying are the result of very special consideration. Consideration was given to the fact that they did not have any seagoing experience, and it was not given in the same form to any other class of officers who took that competitive examination.

The CHAIRMAN. Answer me this question. When they were permitted to make that subdivision, was it the decision of the board or the department that they should qualify in that subject later? I can not conceive of a line officer without some knowledge of navigation. It seems to me you are omitting one of the most important subjects.

Captain WILLIAMS. The vast majority of the men who navigate the globe are men who certainly have not had any mathematical education beyond arithmetic. It would not only be impossible but criminal to put a man on board a ship with no sense of navigation. In the war men did go to sea and by the use of dead reckoning, and that sort of thing, got back into port. But collisions occur at sea and human life is lost as the net result of putting men in responsible positions who know nothing about these seafaring subjects. Attention has been called to the injustice that is perhaps done to them unconsciously, but the fact remains that a ship's company and the officers thereon are a team. I have been at sea with officers who were not entirely familiar with their duties, and somebody has got to do them. That means that other duties are neglected. The day is only 24 hours.

The CHAIRMAN. That does not answer my question. My question is whether in passing these boys to the line without any knowledge being shown as to their general knowledge of navigation, there is any provision made for their training in navigation before you give them those responsible positions requiring that knowledge?

Captain WILLIAMS. Most assuredly. The training of life in the Navy, the training of principles which we all follow.

The CHAIRMAN. Does the Navy provide for that training before giving them those responsible positions, after having omitted the examination?

Captain WILLIAMS. We hold them responsible for not getting it.

Senator WALSH. Did I understand you to say you considered it criminal to put men on a ship who knew nothing about navigation? Did you say that?

Captain WILLIAMS. That is what I mean to say.

Senator WALSH. You have done that very thing since this examination, have you not, because you have assigned one-third of these men to ships that never were on a ship before in their life, and they are out there now doing duty?

Captain WILLIAMS. I do not mean it in that sense. I mean to put a man in charge of the bridge or in a responsible position.

Senator WALSH. Of course we all agree to that.

The CHAIRMAN. I supposed that is what you meant.

Senator WALSH. As a matter of fact, you are now engaged in the Navy of putting these men on ships now to obtain experience and get the knowledge of being on a ship, after they took this examination, after they had made a protest that they had not been given that duty, the Navy is proceeding to give them that sea duty?

Captain WILLIAMS. Undoubtedly.

Ensign SHEPPARD. The line officers do not perform navigation duty aboard ship. A navigator is assigned; a man I believe especially well qualified to perform navigation duties. Each ship carries its own navigator. Is not that correct?

The CHAIRMAN. Should not every line officer be able to perform any duty that may devolve upon him on the ship?

Ensign SHEPPARD. I do believe they should be able to do that, and I also believe in a reserve officer—

The CHAIRMAN. The specialist of which you speak may be disabled for some reason. Then his duty would fall upon the line officer and he should be able to take that position with perfect safety to the ship, the crew, and all.

Ensign SHEPPARD. I believe that any officer who took the examination, even though he failed in navigation, could handle a ship if he was given time. I do not believe not answering the problem is a sign the man is not qualified as a navigator. I can navigate, but I failed in navigation. I have performed deck duties aboard the *Wright* without question, and also engine duties.

The CHAIRMAN. Did you fail in your final examination?

Ensign SHEPPARD. I failed in navigation. I got confused in the first time sight; I made a mistake. I located the error—

The CHAIRMAN. You passed, though, on your examination. You failed in navigation, but the failure in one branch would not make for failure in the examination.

Ensign SHEPPARD. I have no knowledge of the number of subjects in which I failed; but I failed to qualify for the rank of senior grade lieutenant.

The CHAIRMAN. Did you receive any other rank?

Ensign SHEPPARD. I received the rank of ensign.

The CHAIRMAN. Then you did not fail entirely?

Senator WALSH. I have brought him before the committee, because he is forced to leave the Navy, as he can not afford to work for \$1,700 and support a wife and child. The result of his examination is practically a failure for him.

Ensign SHEPPARD. I have performed every duty, I believe, I think I can say this without reservation, assigned to a line officer ashore, and performed that duty with credit. As a verification of that, I ask that my fitness reports be made a part of this record.

Senator WALSH. You never have been assigned to line duty at sea, so there is no chance for you to demonstrate what you could do.

Ensign SHEPPARD. No, sir, I have never had duty at sea until I was transferred to duty on the *Wright*.

Capt. WILLIAMS. You are on the *Wright* now?

Ensign SHEPPARD. Assembly and repair officer aboard the *Wright*. At sea I have performed deck duty and engine duty.

The CHAIRMAN. That would make you efficient in navigation and able to take your place in the line whenever you are called upon.

Ensign SHEPPARD. I am qualified to do that now, sir; but I can not come up for examination for promotion until 1923.

Senator WALSH. When you left the Great Lakes station where did you go?

Ensign SHEPPARD. I returned aboard the U. S. S. *Wright*.

Senator WALSH. That was when?

Ensign SHEPPARD. The flagship of the Atlantic squadron—in December, 1920.

Senator WALSH. Did you take the examination at Great Lakes?

Ensign SHEPPARD. I did.

Senator WALSH. Was any opportunity given you at any time to be relieved from your duties?

Ensign SHEPPARD. No, sir.

Senator WALSH. All during this time you were held responsible for the maintenance of that school?

Ensign SHEPPARD. Of the Aviation Mechanics School.

Senator WALSH. You had to perform the duties just the same, and there was not one day of cessation from those duties?

Ensign SHEPPARD. No, sir; and the duties were made exceptionally hard by reason of the transfer of the commanding officer, Lieut. Commander E. E. Wilson.

Senator WALSH. When was he transferred?

Ensign SHEPPARD. He was transferred, I believe, in April.

Senator WALSH. A new commanding officer was put in his place?

Ensign SHEPPARD. Yes, sir; inasmuch as I was acting executive officer of the school, superintendent of the school, it was necessary for me to assist in the transfer of the new command. During two months of the time allotted to study I was on special duty in connection with the procurement of material and the establishment of a machinist's mate general school in connection with the Aviation Mechanics School. That was the item to which Captain Wurtsbaugh refers in his letter of recommendation.

Senator WALSH. What have you been doing at sea?

Ensign SHEPPARD. I am responsible for the maintenance and operation of all planes and motor equipment assigned to the Atlantic aircraft squadron, boat division.

Senator WALSH. Will you state just how responsible that position is?

Ensign SHEPPARD. It means the complete and perfect operation of all motor equipment, correct alignment of all planes. It means the plane must be absolutely right before the pilot is justified in taking it up. In fact, the life of the pilot and his crew is dependent on the functioning of the motor, and the economical operation of the aviation force is dependent on the engineer officer and the assembly and repair officer; he is the man to say when the repairs shall be made and when repairs shall not be made, and all economies in the use of all equipment.

Senator WALSH. How many other men are there in the naval service, to your knowledge, that have had the same experience and training you have had in this line?

Ensign SHEPPARD. There are a great many engineers in the service, but inasmuch as I was selected by the Bureau of Navigation to write the engineering data to be compiled in the Bureau of Aeronautical Manual, a manual for the guidance and instruction of the aviation personnel, I feel that I am considered an expert by the department, because they would not select a man who was not well qualified to do the job.

Senator WALSH. What was it you prepared for the manual?

Ensign SHEPPARD. The engineer data for the Bureau of Aeronautical Manual.

Senator WALSH. How many pages in the manual?

Ensign SHEPPARD. I have no idea of the number of pages involved.

Senator WALSH. How much of a task was it?

Ensign SHEPPARD. It was not much of a task for a man familiar with the subject, but it would be quite a task for a man not familiar with it.

Senator WALSH. A good deal has been said here during this hearing about specialists in the regular line of the Navy, specialists in engineering, specialists in electricity, and specialists in other branches. What do you say about the importance and necessity of specialists in aviation?

Ensign SHEPPARD. I believe there should be men especially well qualified to perform aviation engineering duties. I think that fact is accepted by the Bureau of Aeronautics.

Senator WALSH. As a matter of fact, you have been such a specialist in your line, in engineering, that you have never been given an opportunity to fly?

Ensign SHEPPARD. That is the idea; yes, sir.

Senator WALSH. Although you have wanted to fly?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. You were so valuable and such a qualified expert in this important specialty of aviation work that you have been kept entirely at your line of work?

Ensign SHEPPARD. According to the statement of my former commanding officer—

Senator WALSH. And you have not had an opportunity?

Ensign SHEPPARD. I have not had the opportunity to qualify.

Senator WALSH. Mr. Chairman, I am going to make a departure for a moment. I understood you, Admiral Bryan, yesterday, to state that every person who passed the examination originally was given the rank which they had at the time of the examination.

Admiral BRYAN. Everybody that passed in all subjects.

Senator WALSH. I also understood you to say that those who failed in only one major subject and one minor subject retained their rank.

Admiral BRYAN. Yes, sir.

Senator WALSH. Did you get your marks from the board?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. What was it?

Ensign SHEPPARD. 2.74.

Senator WALSH. What is the passing point?

Ensign SHEPPARD. Two and five tenths. That was the final average, 2.74 in my case.

Senator WALSH. That was the average of the first marking?

Ensign SHEPPARD. I do not know about the first one.

Senator WALSH. I would like to have you show us this man's marks, Admiral.

Admiral BRYAN. As a matter of fact, this gentleman did not pass the examination.

Senator WALSH. How did he get 2.7?

Admiral BRYAN. He got 2.7 on his general average, largely on his record. This officer failed in so many subjects that he would not have passed, but we considered his record and his recommendations and his good mark in aeronautics, that we passed him as an officer, believing he could make up those other subjects before he was promoted.

Senator WALSH. Wait a moment. Did you require a man to pass independent of his record or to pass with his record?

Admiral BRYAN. To pass with his record.

Senator WALSH. Then why are you making a distinction? If he got 2.7 on his record, what difference does it make? He passed, did he not?

Admiral BRYAN. He failed in several subjects.

Senator WALSH. Never mind what he failed in. Did he get 2.7, counting his record?

Admiral BRYAN. Yes, sir; I think he did.

Senator WALSH. Why did he not pass if 2.5 was the passing mark?

Admiral BRYAN. Because he was unsatisfactory in too many subjects.

Senator WALSH. I can not understand it. What was the highest number of points you could give? Was it 4?

Admiral BRYAN. Four.

Senator WALSH. And the passing mark is 2.5?

Admiral BRYAN. Yes, sir.

Senator WALSH. That passing mark is reached by averaging the man's marks in all studies and his service record?

Admiral BRYAN. Yes, sir.

Senator WALSH. That average was shown by him to be 2.7.

Admiral BRYAN. Yes; that is correct.

Senator WALSH. In other words, he passed above the average?

Admiral BRYAN. He passed above the average; yes, sir.

Senator WALSH. Yesterday you gave me the impression that everybody who passed above the average retained their rank.

Admiral BRYAN. I had no intention of giving you that impression.

The CHAIRMAN. Senator, you are mistaken.

Admiral BRYAN. And I do not think I gave it to you.

The CHAIRMAN. He stated clearly that these boys, if they passed in all subjects, retained their rank; that if they failed in one major and one minor subject, and passed in the others, they retained their rank.

Senator WALSH. Did you state to me yesterday that 110 reserve officers retained their rank?

Admiral BRYAN. Yes, sir.

Senator WALSH. I have been canvassing these young men since that time, and if 110 retained their rank, 110 passed in all subjects.

The CHAIRMAN. No.

Admiral BRYAN. Oh, no.

The CHAIRMAN. They may have failed in one minor subject and one major subject.

Senator WALSH. Do you still say 110 retained their rank?

Admiral BRYAN. No; I think 110 is the total given commissions.

Senator WALSH. I thought so.

Admiral BRYAN. I may be mistaken.

Senator WALSH. I asked the question repeatedly, because I knew it was impossible—

Admiral BRYAN. But I made no such answer as you state.

Senator WALSH. What did you say about 110?

Admiral BRYAN. I will tell you what I said. The total number of officers recommended for commissions was 152. The officers that retained their grades were: Lieutenants, 54; lieutenants (junior grade), 22; ensigns, 16; making 92 that retained their grade. The officers reduced one grade were lieutenants to lieutenants (junior grade), 10; lieutenants (junior grade) to ensigns, 13; making 23. The officers reduced two grades were lieutenants to ensigns, 37; making in all officers who were recommended for commissions 152. Officers recommended for warrant grade, from lieutenants (junior grade), 2; ensigns, 7; making in all 9, and making a grand total of U. S. N. R. F. class 5 officers recommended for commissions and warrant rank, 161; total not recommended, 85; total examined, 246.

I will submit that memorandum for the record.

(The memorandum referred to is here printed in full, as follows:)

Recapitulation of officers of United States Naval Reserve Force, Class 5.

Officers retained in grade:

Lieutenants.....	54
Lieutenants (junior grade).....	22
Ensigns.....	16

Total.....	92
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Officers reduced one grade:

Lieutenants to lieutenants (junior grade).....	10
Lieutenants (junior grade) to ensign.....	13

Total.....	23
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Officers reduced two grades: Lieutenants to ensign.....

37

Total officers recommended for commission.....	152
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Officers recommended for warrant grades:

Lieutenants (junior grade).....	2
Ensigns.....	7

Total.....	9
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Total officers recommended for commission and warrant rank.....	161
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Total not recommended.....	85
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Total examined.....	246
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United States Naval Reserve Force, class 5, officers who passed the examinations of May 16, 1921, for permanent appointment in the United States Navy.

Name.	Rank.	
	At time of examination.	Recommended for—
1. Officers satisfactory in all subjects, retained grade:		
Botta, Rico.....	Lieutenant, United States Naval Reserve Force, 5.	Lieutenant.
Brow, H. J.....	do.....	Do.
Burke, C. B.....	do.....	Do.
Colston, T. M., Jr.....	do.....	Do.
Connell, B. J.....	do.....	Do.
Dickey, F. C.....	do.....	Do.
Gray, T. A.....	do.....	Do.
Hewitt, L.....	do.....	Do.
Hudson, A. W.....	do.....	Do.
Lonnquest, T. C.....	do.....	Do.
McConnell, R. P.....	do.....	Do.
Pope, L. A.....	do.....	Do.

United States Naval Reserve Force, class 5, officers who passed the examinations of May 16, 1921, for permanent appointment in the United States Navy—Con.

Name.	Rank.	
	At time of examination.	Recommended for—
1. Officers satisfactory in all subjects, retained grade—Con.		
Simard, C. T.	Lieutenant, United States Naval Reserve Force, 5.	Lieutenant.
Williams, C. D., jr.	do.	Do.
Naugle, P. D.	do.	Do.
Total lieutenants. 15		
Bowes, H. R.	Lieutenant (junior grade), United States Naval Reserve Force, 5.	Lieutenant (junior grade).
Carlson, H. F.	do.	Do.
Dupuy, A. E.	do.	Do.
Harrell, R. H.	do.	Do.
Hulse, J. H.	do.	Do.
Lee, T. B.	do.	Do.
McKellar, E. P.	do.	Do.
Studley, B.	do.	Do.
Total lieutenants (junior grade) 8		
Total officers satisfactory in all subjects. 23		
2. Officers graded under rule 1, unsatisfactory in 1 minor subject and satisfactory in final multiple to retain grade:		
Avery, L. C.	Lieutenant, United States Naval Reserve Force, 5.	Lieutenant.
Compo, G. L.	do.	Do.
Crinkley, A.	do.	Do.
Elliott, H. A.	do.	Do.
Fake, F. C.	do.	Do.
Henderson, G. R.	do.	Do.
Sloman, F. H.	do.	Do.
Iseman, J. W.	do.	Do.
Hundt, L. T.	do.	Do.
Irvine, R.	do.	Do.
Lyon, R. D.	do.	Do.
McDonnell, F. R.	do.	Do.
McMurray, S. B.	do.	Do.
Norris, R. H.	do.	Do.
Null, T. B.	do.	Do.
Pride, A. N.	do.	Do.
Reichelderfer, F. W.	do.	Do.
Roe, G. T.	do.	Do.
Rohrbach, W. H.	do.	Do.
Sheehan, J. M.	do.	Do.
Total lieutenants satisfactory under rule 1. 20		
Callaway, S. W.	Lieutenant (junior grade) United States Naval Reserve Force, 5.	Lieutenant (junior grade).
Dyer, J. E.	do.	Do.
Total lieutenants (junior grade) satisfactory under rule 1. 2		
Shafer, J. H.	Ensign, United States Naval Reserve Force, 5.	Ensign.
Total ensigns satisfactory under rule 1. 1		
Total officers satisfactory under rule 1. 23		
3. Officers graded under rule 2, unsatisfactory in one major subject but an excellent record, to retain grade:		
Anderson, J. B.	Lieutenant United States Naval Reserve Force, 5.	Lieutenant.
Gavin, A.	do.	Do.
Rodd, H. C.	do.	Do.
Total lieutenants satisfactory under rule 2. 3		
Finch, V. C.	Lieutenant (junior grade) United States Naval Reserve Force, 5.	Lieutenant (junior grade).
Guinn, T. D.	do.	Do.
Total lieutenants (junior grade) satisfactory under rule 2. 2		
Perron, H. V.	Ensign, United States Naval Reserve Force, 5.	Ensign.
Total ensigns (rule 2). 1		
Total officers satisfactory under rule 2. 6		

United States Naval Reserve Force, class 5, officers who passed the examinations of May 16, 1921, for permanent appointment in the United States Navy—Con.

Name.	Rank.	
	At time of examination.	Recommended for—
4. Officers graded under rule 3, unsatisfactory in two minor subjects but sufficient to show a fair knowledge of same with very good or excellent records and good marks in all other subjects, to retain grade:		
Carter, R. W.	Lieutenant, United States Naval Reserve Force, 5.	Lieutenant.
MacDonald, G. G.	do.	Do.
Owen, G. T.	do.	Do.
Rittenhouse, D.	do.	Do.
Total lieutenants (rule 3) ... 4		
Marinelli, V. I.	Lieutenant (junior grade), United States Naval Reserve Force, 5	Lieutenant (junior grade).
Musk, D. A.	do.	Do.
Whitmore, F. A.	do.	Do.
Total lieutenants (junior grade), (rule 3) ... 3		
Total officers satisfactory under rule 3 ... 7		
5. Officers graded under Rule 4, same as rule 3, above, but with marks showing lack of knowledge in these subjects, to make next lower grade:		
Barkleew, E. H.	Lieutenant, United States Naval Reserve Force, 5.	Do.
Total lieutenants (rule 4) ... 1		
Total officers satisfactory under rule 4 ... 1		
6. Officers graded under Rule 5, unsatisfactory in one major and one minor subject with sufficient marks to show working knowledge in those subjects but with excellent record and high marks in other subjects, to retain grade:		
Esterly, M. A.	Lieutenant, United States Naval Reserve Force, 5.	Lieutenant.
Fellers, W. M.	do.	Do.
Fuller, E. L.	do.	Do.
Gorton, A. W.	do.	Do.
Houghton, A. R.	do.	Do.
Lawrence, J. B.	do.	Do.
Little, C. G.	do.	Do.
Patterson, W. K.	do.	Do.
Snody, A. T.	do.	Do.
Stanley, H. T.	do.	Do.
Stanley, J.	do.	Do.
Stevens, J. H.	do.	Do.
Total lieutenants (Rule 5) ... 12		
Francis, C. C.	Lieutenant (junior grade), United States Naval Reserve Force, 5.	Lieutenant (junior grade).
Harper, C. F.	do.	Do.
Lake, A. C.	do.	Do.
MacCalman, D. J.	do.	Do.
Pollard, R. V.	do.	Do.
Stephens, R. G.	do.	Do.
Turner, G. B.	do.	Do.
Total lieutenants (junior grade), (Rule 5) ... 7		
Total officers satisfactory under Rule 5 ... 19		

United States Naval Reserve Force, class 5, officers who passed the examinations of May 16, 1921, for permanent appointment in the United States Navy—Con.

Name.	Rank.	
	At time of examination.	Recommended for—
7. Officers graded under rule 6, same as rule 5, above, but marks in other subjects low or with low record or marks in unsatisfactory subjects not showing working knowledge of same or showing a lack of aptitude in his specialty, to lower grade depending upon general marks:		
Chourre, E.	Lieutenant, United States Naval Reserve Force, 5.	Lieutenant (junior grade).
Ott, G. A.	do.	Do.
Rhodes, B.	do.	Do.
Scott, C. A.	do.	Do.
Tyler, R. F.	do.	Do.
Warner, P. C.	do.	Do.
Total lieutenants (rule 6) ... 6		
Total officers satisfactory under rule 6 ... 6		
8. Officers graded under rule 7, unsatisfactory in two major subjects with good record and working knowledge in other subjects, to lower grades depending on character of marks in case of lieutenant and lieutenant (junior grade). In cases of ensigns if their marks show aptitude for the service to be retained in grade:		
Dolecek, E. E.	Lieutenant, United States Naval Reserve Force, 5.	Ensign.
Dowell, B. B.	do.	Do.
Peterson, W. L.	do.	Lieutenant (junior grade).
Renaker, T. E.	do.	Do.
Thweatt, T. N.	do.	Do.
Total lieutenants (rule 7) ... 5		
Carle, P.	Ensign, United States Naval Reserve Force, 5.	Ensign.
Total Ensign (rule 7) ... 1		
Total officers satisfactory under rule 7 ... 6		
9. Officers graded under rule 8, with less than 2.5 in 3 subjects, 2 of which are major, but very good to excellent records and satisfactory total, to go down two grades or more:		
Auerswald, R. R.	Lieutenant, United States Naval Reserve Force, 5.	Do.
Bauch, C. E.	do.	Do.
Becker, F. H.	do.	Do.
Blackwell, W. E.	do.	Do.
Blasiar, A. F.	do.	Do.
Cahill, G. A., jr.	do.	Do.
Cannon, G. C.	do.	Do.
Coatsworth, C. J., jr.	do.	Do.
Conley, D. L.	do.	Do.
Darby, A. M.	do.	Do.
Durfee, Thos.	do.	Do.
Eddy, M. F.	do.	Do.
Estabrook, F. T.	do.	Do.
Evans, R. P.	do.	Do.
Fry, S. B.	do.	Do.
Grooch, Wm. S.	do.	Do.
Hutchinson, L. B.	do.	Do.
Keddie, E. A.	do.	Do.
Keene, C.	do.	Do.
Kindell, N. M.	do.	Do.
Lyon, R. F.	do.	Do.
Miller, G. C.	do.	Do.
Murphy, J. L.	do.	Do.
Ostin, O. L.	do.	Do.

United States Naval Reserve Force, class 5, officers who passed the examinations of May 16, 1921, for permanent appointment in the United States Navy—Con.

Name.	Rank.	
	At time of examination.	Recommended for—
9. Officers graded under rule 8, etc.—Continued.		
Palmer, C. D.....	Lieutenant, United States Naval Reserve Force, 5.	Ensign.
Sheppard, E. W.....	do.	Do.
Shone, C. G.....	do.	Do.
Shumway, P. E.....	do.	Do.
Stickley, W. E.....	do.	Do.
Taylor, R. S.....	do.	Do.
Varini, G.....	do.	Do.
Walker, W. J.....	do.	Do.
West, H. F.....	do.	Do.
Williams, A. J., jr.....	do.	Do.
Wright, W. N.....	do.	Do.
Total lieutenants (rule 8)..... 35		
Adams, S.....	Lieutenant (junior grade), United States Naval Reserve Force, 5.	Do.
Wilkins, E. B.....	do.	Do.
Total lieutenants (junior grade) (rule 8)..... 2		
Allen, D. C.....	Ensign.	Do.
Brown, L. W.....	do.	Do.
Gurley, D. D.....	do.	Do.
Pennington, J. A.....	do.	Do.
Total ensigns (rule 8)..... 4		
Total officers satisfactory under rule 8..... 41		
10. Officers graded under rule 9; all ensigns with a satisfactory multiple of 2.5 to retain their grade provided they do not show a marked deficiency in more than two subjects:		
Acker, S.....	Lieutenant (junior grade), United States Naval Reserve Force, 5.	Do.
Bark, E. B.....	do.	Do.
Beck, J. E.....	do.	Do.
Brooke, W. A.....	do.	Do.
Gwin, W. B.....	do.	Do.
Hasselmann, G. H.....	do.	Do.
Lovell, L. H.....	do.	Do.
McNulty, H. J.....	do.	Do.
Richard, G. L.....	do.	Do.
Whitaker, R. A.....	do.	Do.
Wood, W. P.....	do.	Do.
Total lieutenants (junior grade) (rule 9)..... 11		
Boyes, G. M.....	Ensign	Do.
Haynes, P. L.....	do.	Do.
Hollinsworth, W. B., jr.....	do.	Do.
Logan, D. N.....	do.	Do.
Ottaway, F. H.....	do.	Do.
Rasche, R. C.....	do.	Do.
Richards, T. G.....	do.	Do.
Waller, R. E.....	do.	Do.
Waterman, F. B.....	do.	Do.
Total ensigns (rule 9)..... 9		
Total officers satisfactory under rule 9..... 20		
11. Officers recommended for warrant ranks:		
Merrill, R. H.....	Lieutenant (junior grade), United States Naval Reserve Force, 5.	Gunner (E.).
Tallman, T. A.....	do.	Boatswain (A.).
Coles, Wm. M.....	Ensign, United States Naval Reserve Force, 5.	Gunner (A.).
Erdman, C. E.....	do.	Gunner (E.-A.).
Garnett, W. T.....	do.	Do.
Ketcham, J. B.....	do.	Boatswain (A.).
Meachen, H. F.....	do.	Machinist (A.).
Pixler, L. G.....	do.	Gunner (E.-A.).
Read, G. R.....	do.	Do.
Total officers recommended for warrant ranks..... 9		

Total officers recommended for commission.....	152
Total recommended for warrant grades.....	9
Total recommended.....	161
Total officers who took examinations.....	246
Recommended for commission.....	152
Recommended for warrant.....	9
Total recommended.....	161
Total failed.....	85

Senator WALSH. So that Lieutenant Sheppard is among the 23 that dropped two grades?

Admiral BRYAN. Yes, sir.

Senator WALSH. Is that true?

Admiral BRYAN. I think he is.

Senator WALSH. Then to sum up the result of the examination, 85 failed completely?

Admiral BRYAN. Yes, sir.

Senator WALSH. And 69 lost their marks they formerly held, 23 and 37, making a total of 145?

Admiral BRYAN. Yes, sir.

Senator WALSH. Making a total of 145 that have been either reduced in rank or failed?

Admiral BRYAN. Yes, sir.

Senator WALSH. And 92 retailed their rank?

Admiral BRYAN. Yes, sir.

Senator WALSH. And 92 retained their rank?

Admiral BRYAN. Yes, sir.

Senator WALSH. Will you give his marks, please.

Admiral BRYAN. Yes, sir. Lieutenant Sheppard failed in Navy regulations, navigation, ordnance and gunnery, and electricity. That would have been sufficient to not pass him. But he had such excellent marks—that is, an excellent mark on his record, and on his record appears most of those letters, I think all except the one to the board—his record was so good and his recommendations were so high, that we decided he would be valuable in the service and that he could make up these conditions by serving in a junior grade. Then we recommended him as ensign.

Senator WALSH. What did you mark him on his record?

Admiral BRYAN. His record was 3.7 out of 4. It was about 92½ per cent.

Senator WALSH. What did he get in navigation?

Admiral BRYAN. In navigation he got 1.10. That is a little over 30 per cent.

Senator WALSH. Out of what?

Admiral BRYAN. Out of 4.

Senator WALSH. The next subject?

Admiral BRYAN. In Navy regulations he got 1.58.

Senator WALSH. 1.58 out of 4 or out of 2?

Admiral BRYAN. Out of 4. That is less than 40 per cent. Ordnance and gunnery, 1.82. In seamanship he got 2.5, a satisfactory mark. In engineering he got 2.58, which is a satisfactory mark. In electricity he got 1.29, about 30 per cent. In military law he got 3.56. I made a mistake in referring to aeronautics. He did not take it. In international law he got 3.

Senator WALSH. You have not got him down for aeronautics?

Admiral BRYAN. He omitted it. On general education, 2.96.

Senator WALSH. Out of how many?

Admiral BRYAN. Out of 4. They are all out of a maximum of 4.

Senator WALSH. You gave him only 2.96 in general education?

Admiral BRYAN. That is all.

Senator WALSH. Out of 4?

Admiral BRYAN. Yes, sir.

Senator WALSH. Why did you not give him a higher mark?

Admiral BRYAN. I did not mark these papers and I can not tell you. I suppose it was from his carelessness. He is marked relative to his general education in English, grammar, penmanship, and the general appearance of his papers.

Senator WALSH. That mark is fixed on the appearance of the papers?

Admiral BRYAN. All the way through.

Senator WALSH. Rather than his preliminary education?

Admiral BRYAN. Yes, sir.

Senator WALSH. So it makes no difference whether he was a college man or a business college graduate. If his paper looked well, he got a higher mark than one who did not.

Admiral BRYAN. That would receive some consideration. It would be on his grammar, his spelling, and his penmanship.

Senator WALSH. What chance did you have to know his previous education unless a questionnaire was given to him? Did you have a questionnaire to mark?

Admiral BRYAN. It might appear on his record.

Senator WALSH. You picked that out of his record?

Admiral BRYAN. It might be in the record. Very often they put in where they have graduated and what their education has been.

Senator WALSH. In getting that 2.96, did your examiners as a matter of fact go to his record to find out what his previous education was?

Admiral BRYAN. No, sir.

Senator WALSH. And consider that or not?

Admiral BRYAN. I should say not.

Senator WALSH. You would not?

Admiral BRYAN. No, sir.

Senator WALSH. What they did was to consider his spelling, his writing, and his grammar.

Admiral BRYAN. Yes, sir.

Senator WALSH. And whether he was a Harvard graduate or a high-school graduate was not a factor in determining that mark?

Admiral BRYAN. No, sir. A Harvard graduate would probably know how to spell and punctuate and read and write.

Senator WALSH. The total average he received was 2.7; am I right?

Admiral BRYAN. 2.74; yes, sir.

Senator WALSH. Then when you say that 2.5 was the passing mark, you mean that 2.5 is the passing mark provided you pass in enough subjects; is that right?

Admiral BRYAN. 2.5 is the passing mark if he passed in each subject. He was required to get 2.5 in each subject.

Senator WALSH. I see. I thought it was an average.

The CHAIRMAN. I want to get that straight in my mind; 2.5 is the passing mark of the general average of all subjects taken, is it not? You allow there for the record and certain others and then take the average, do you not?

Admiral BRYAN. He has to get that.

The CHAIRMAN. He has to get a general average of that.

Admiral BRYAN. I have made a mistake here, I think.

The CHAIRMAN. See if I have got this straight in my mind. The general average of 2.5 passes?

Admiral BRYAN. He must have that general average.

The CHAIRMAN. They retain their grade if they pass in all subjects?

Admiral BRYAN. Yes, sir.

The CHAIRMAN. If they fail in one major and one minor subject, they still retain their grade?

Admiral BRYAN. Yes.

Senator WALSH. So that on the very first inspection of his papers he was found to have passed?

Admiral BRYAN. Wait a minute. I think there is where I made a mistake. I see we gave him a mark of 2.5, a satisfactory mark, in electricity, on account of the fact he showed much more intelligence in electricity than most of the others that were examined of the aviators. He got 1.29. Therefore we considered his excellent record, his recommendations from his officers that he was an officer that we ought to retain, and we gave him 2.5 in electricity. That is what brought up his average to 2.74.

Senator WALSH. I do not see what right you had to make a mark in one subject for a man based upon what were his other marks in other subjects.

Admiral BRYAN. I will tell you what right we had—the right of that board. The candidate is required to prove to the board he has the qualifications. If the board considers he has the qualifications, they can recommend him for promotion.

Senator WALSH. Yes; but I assume that before you started the examination of these papers you put a maximum number of points that a candidate should have, 4.

Admiral BRYAN. That is correct.

Senator WALSH. And you put the passing mark at 2.5?

Admiral BRYAN. Yes, sir.

Senator WALSH. The man that examined electricity sent in his mark to your board?

Admiral BRYAN. That is correct.

Senator WALSH. The man who examined in navigation sent in his mark; the man who examined his record sent in his mark.

Admiral BRYAN. That is right.

Senator WALSH. You gathered together all these marks, added them up, and got 2.7.

Admiral BRYAN. He did get 2.7.

Senator WALSH. Why did not he pass when he did that?

Admiral BRYAN. Because he did not get satisfactory in enough subjects. He passed only in three subjects.

Senator WALSH. Then when you say 2.5 general average passes, it is not the fact.

Admiral BRYAN. I did not say that. I said he must get 2.5 and he must be satisfactory in all subjects.

Senator WALSH. He must get 2.5 in his general average anyway. Then he must do something in addition. What was that?

Admiral BRYAN. He must get satisfactory in a sufficient number of subjects.

Senator WALSH. In how many subjects?

Admiral BRYAN. It is all in those rules.

Senator WALSH. Can not you tell me without reading the rules?

Admiral BRYAN. No; I can read the rules to you.

Senator WALSH. I do not care to go through all this maze of rules. I want to know when the examining board puts these marks on this man and you find he has 2.7, and he has failed in some and passed in other subjects; you have his high record mark—whether he has passed or whether he has failed.

Admiral BRYAN. We passed him because we gave him the necessary points.

Senator WALSH. Then he passed by getting over 2.5?

Admiral BRYAN. He did not pass at first. He passed out of the consideration of the board that he would be good material.

Senator WALSH. When did he not pass and when did he pass?

Admiral BRYAN. He did not pass when his paper was first examined.

Senator WALSH. So when this mark of 2.7 came in, or the marks which made that average, you said he had not passed?

Admiral BRYAN. He did not get 2.7.

Senator WALSH. I want his original mark, and I want whatever change was made in those marks, and I want to know why they were made. I want to know what kind of an examination this man went through.

Admiral BRYAN. There was a change made by the board in his electricity papers. He showed a fair amount of intelligence in that subject.

Senator WALSH. When you first got his mark in electricity, what was it?

Admiral BRYAN. 1.29.

Senator WALSH. You reviewed that paper so as to increase his mark and gave him what?

Admiral BRYAN. No, sir; we did not review the paper.

Senator WALSH. To what did you increase it?

Admiral BRYAN. We increased it to a satisfactory mark, 2. 5.

Senator WALSH. You went over his mark of 1.29 in electricity and changed it to 2.5?

Admiral BRYAN. Yes, sir.

Senator WALSH. What right had you to do this in a competitive examination, if it is competitive?

Admiral BRYAN. It was for the purpose of putting this young man, in consideration of his record and his recommendations, where he could be retained in the service.

Senator WALSH. Then because when you looked over his record and it was such a good record—

Admiral BRYAN. Yes, sir.

Senator WALSH. You thought it a mistake to fail him, and without reexamining his paper you changed the mark on electricity from 1.29 to 2.5?

Admiral BRYAN. Yes, sir.

Senator WALSH. Although the fact was that his paper was entitled to only 1.29?

Admiral BRYAN. Of course, that is what we had to refer to.

Senator WALSH. In how many other cases did you do this same thing?

Admiral BRYAN. I think they were very rare. It was only in the case of officers who had such good records.

Senator WALSH. The fact of the matter is that a lot of these men that you finally did pass have really not passed any better examination than other men, but because they had a good record you increased in some particular subject a mark that would bring them over the 2.5?

Admiral BRYAN. No, sir.

Senator WALSH. That is what you did here.

Admiral BRYAN. But he passed a better examination than these other men.

Senator WALSH. How well do we know?

Admiral BRYAN. Because he was unsatisfactory in fewer subjects.

Senator WALSH. You found that with the mark of 1.29, he was below 2.5 for the average, did you not?

Admiral BRYAN. Yes, sir.

Senator WALSH. And to put him over the average of 2.5 you deliberately gave him a mark to which he was not entitled in electricity, and your records show it, of 2.5?

Admiral BRYAN. Yes, sir.

Senator WALSH. Do you call that honest?

Admiral BRYAN. Yes, sir.

Senator WALSH. And you call that competitive, to mark a man's paper that way in a competitive examination?

Admiral BRYAN. Senator, you have asked me a question and I would like to answer it. He having failed on his first examination, by the time we did that and increased that mark, the examination had lost its competitive feature from the fact that there were less than 1,200 that were going to be appointed. Therefore we thought we had a perfect right to retain this man and raise his mark.

Senator WALSH. From the fact that only 23 in class 5 had passed, you concluded you would increase the number and make more than 23 pass?

Admiral BRYAN. Yes.

Senator WALSH. So you looked through the record of men like this man?

Admiral BRYAN. Yes.

Senator WALSH. And you saw he had a good record.

Admiral BRYAN. It was not necessary to look through his record. The record had the excellent mark.

Senator WALSH. You saw he had the excellent mark; then in order to put him over the line, in order to make more than 23 men pass—

Admiral BRYAN. No; not more than 23; more than whatever the number was, two hundred and some.

Senator WALSH. I mean the class 5 men.

Admiral BRYAN. Yes, sir.

Senator WALSH. It was about 23 that passed?

Admiral BRYAN. In all subjects; yes, sir.

Senator WALSH. So that 152 got commissions?

Admiral BRYAN. Yes, sir.

Senator WALSH. And were all men like him who got an advance unwarranted, increased in their marks—

Admiral BRYAN. No, sir.

Senator WALSH (continuing). In some subject in which they did not pass?

Admiral BRYAN. Not at all; that is in nowise true.

Senator WALSH. Is it true you increased his mark?

Admiral BRYAN. Yes, sir.

Senator WALSH. How do we know, unless you bring every paper here, to whom else you did this?

Admiral BRYAN. I do not know, unless you are willing to take my word for it.

Senator WALSH. How do you happen to remember his case?

Admiral BRYAN. I can see it on the card. You do not understand.

Senator WALSH. Let me say, Mr. Chairman, that I asked the admiral to bring two typical cases. I named this man because he had passed the examination,

and also one other case that I will refer to later, of a man who failed. I wanted to find out what the process was. That is why the admiral has this particular information. I made the request over the phone this morning, and that is why, Admiral, you have that paper.

Admiral BRYAN. Yes.

Senator WALSH. You can tell by your memorandum there that this subject was changed?

Admiral BRYAN. Yes, sir.

Senator WALSH. Will you let me see that?

Admiral BRYAN. Yes, sir.

Senator WALSH. Under electricity the original mark in red ink was 1.29. That is scratched out and above it the mark of 2.5 and the initials "S. S. W."

Admiral BRYAN. That is the president of the board.

Senator WALSH. Was that without reviewing the paper?

Admiral BRYAN. Yes, sir.

Senator WALSH. Without reexamining the man?

Admiral BRYAN. Yes, sir.

Senator WALSH. You overwrote the decision of the man who examined the paper on electricity?

Admiral BRYAN. Yes, sir.

Senator WALSH. And advanced this man from 1.29 to 2.5?

Admiral BRYAN. Yes, sir, but I want to say, Senator, that you apparently do not understand the way we went over that examination.

Senator WALSH. I do not consider it competitive to do that.

Admiral BRYAN. That is just what I want to point out to you. We went over these examinations and a certain number of them passed, a very few in all subjects. Then we decided that those that were unsatisfactory in one minor subject would pass, would retain their grade; then in a major subject. Finally we got down to the showing that it was not going to be competitive, that the 1,200 were not going to pass. The law required them to stay in the place that they had. They were not allowed to take their order according to the examinations. So the examination ceased to be competitive. Then we went over those papers to see who we could possibly get who would be of service to the Government, and in only a few cases we raised the marks. That is to say, that those men in the opinion of the board had the qualifications for the rank for which we recommended them.

Senator WALSH. So that you first passed all the men who had gotten more than 2.5 in all subjects?

Admiral BRYAN. Yes, sir.

Senator WALSH. Who had an average of 2.5, and that number was 23 or 27, whatever it may be?

Admiral BRYAN. Those are naval reserves.

Senator WALSH. Then you went over and found out how many failed in one subject?

Admiral BRYAN. Yes.

Senator WALSH. And passed them?

Admiral BRYAN. Yes.

Senator WALSH. And how many failed in two subjects, and applied these nine rules?

Admiral BRYAN. Yes, sir.

Senator WALSH. Then you did not have enough?

Admiral BRYAN. Yes.

Senator WALSH. Then you proceeded to do what you did in this man's case, to strike out a fixed mark?

Admiral BRYAN. Yes, sir.

Senator WALSH. And write in an unwarranted and unmerited mark?

Admiral BRYAN. No, not at all. We considered that we were going to pass the man, and therefore we put in that mark, but did not strike the other out. It is on the record.

Senator WALSH. Why did you not pass him by going to the Secretary of the Navy, or going to the board, and saying: "Here, we have fixed too high a standard. This examination shows we were too exacting. Let us give 5 points to this man's record, instead of the number we have given, and then reexamine these papers."

Admiral BRYAN. We did not believe that the standard was too high.

Senator WALSH. You could have done that.

Admiral BRYAN. And we can do this, too, if the man proves his qualifications to the board.

Senator WALSH. But if you had made a general rule which applied to all, and then reexamined the papers, everybody would have been treated alike?

Admiral BRYAN. Yes.

Senator WALSH. The mere fact this man had three or four letters from his commanding officers of a complimentary character perhaps saved him when some other man that did not have the letters, who perhaps would have been more valuable to the service, did not have the influence that would lead the board to change his mark; is not that true?

Admiral BRYAN. No, sir; they did not have as good record.

The CHAIRMAN. We will have to adjourn at this point.

Senator WALSH. This young man wants his examination papers brought here to-morrow. Will you do that?

Admiral BRYAN. They are here now, and will be here to-morrow.

(Whereupon, at 12.15 o'clock p. m., the subcommittee adjourned until to-morrow, Friday, April 21, 1922, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

FRIDAY, APRIL 21, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 o'clock a. m., in the room of the committee, Capitol Building, Senator L. Heisler Ball (chairman) presiding.

Present: Senator Keyes.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order.

Captain WILLIAMS. May I take this opportunity to refer to some information which the committee has directed to be procured. I have a memorandum relative to five items.

One is the cost per year of maintaining the naval air station, Pensacola, Fla., for the years 1917 to 1920, inclusive. That I am obtaining. Also the number of students at Pensacola each year. I am getting that now.

There was also a request as to when the school of instruction was started at Pensacola; how long it was continued; what hours were allotted for instruction; and who were the instructors. I am getting that now.

Request was also made for samples of questions in all professional subjects given to midshipment on examination for graduation. I am getting that.

The same request was made for examination for promotion from ensign to lieutenant, junior grade. I am getting that, too.

There is one request, as to the number of officers attached to shore stations who in 1919 had signified their intention of taking the examinations. This data involves the search of some 20,000 records. It is a very large job.

The CHAIRMAN. Omit that question. It is one I asked. It is not material. The replies to the other requests will be filed with the committee, and they will be made a part of the record.

Senator WALSH. I was not so much concerned about Pensacola and with the course of studies there, because I have witnesses dealing with that; but I was concerned about Akron.

Captain WILLIAMS. I have that. I have a list to submit of reserve and temporary line officers who were on duty at the naval station, Pearl Harbor, which is in reference to a letter which was read here in connection with instructions or an order dated March 1, 1921, from the naval air station at Pearl Harbor.

Senator WALSH. Reserve officers who took the examination?

Captain WILLIAMS. The list I have contains reserve officers and temporary officers, and I submit it to the committee.

(The list referred to is here printed in full, as follows:)

List of reserve and temporary line officers who were on duty at the naval station, Pearl Harbor, Hawaii, at some time during the period from March 1, 1920, to May 16, 1921..

Name.	Rank.	Qualified for—	Inclusive dates of service.
Boldt, J. W.....	Lieutenant (T.).....		June 2, 1919–Nov. 18, 1921.
Billings, A. S.....	Ensign (T.).....	Ensign.....	Dec. 19, 1920–Oct. 19, 1921.
Brix, E. B.....	Lieutenant (junior grade) (T.).....	Lieutenant (junior grade).....	Dec. 19, 1919–Oct. 6, 1921.
Butrick, S.....	Ensign (T.).....		Dec. 13, 1919–Apr. 20, 1922.
Duffy, H. J.....	Lieutenant (T.).....	Lieutenant.....	Aug. 4, 1919–Apr. 20, 1922.
Killmer, O. P.....	Ensign (T.).....	Ensign.....	Dec. 19, 1919–Dec. 6, 1921.
Young, W. M.....	Lieutenant (T.).....		Dec. 2, 1919–Aug. 7, 1920.
Auerswald, R. R.....	Lieutenant (junior grade) (R. F.).....	Ensign.....	Dec. 19, 1919–Nov. 25, 1921.
Brady, Joseph B.....	Ensign (R. F.).....		Dec. 19, 1919–June 23, 1921.
Cobb, W. R.....	Lieutenant (R. F.).....		Dec. 19, 1919–May 23, 1921.
McNulty, H. J.....	Lieutenant (junior grade) (R. F.).....	Ensign.....	Dec. 19, 1919–Nov. 25, 1921.
Ott, G. A.....	do.....	Lieutenant (junior grade).....	June 1, 1920–Sept. 17, 1921.
Soper, H. C.....	Ensign (R. F.).....		Dec. 19, 1919–Nov. 15, 1921.

Senator WALSH. Men that did not take the examination, who expressed no wish to do so, will not help us any. How many men were there that finally took the examination among the temporary and reserve officers?

Captain WILLIAMS. My record shows seven temporaries and six reserves. Four qualified out of the temporaries and three reserves. I will have to refer to the records of Admiral Bryan to see about these others who appear here, whether they took the examination or not. This record does not show.

Senator WALSH. Our information was there were three reserves at Pearl Harbor that were in this class who took instruction.

The CHAIRMAN. That report gives three who passed or who qualified.

Captain WILLIAMS. Referring to the discussion about the situation at the naval air station at Akron, Ohio, in which a letter dated August 12, 1919, was referred to, I have here to submit to the committee a memorandum and also a copy of that letter.

(The memorandum and letter referred to were read by Captain Williams, and are here printed in full as follows:)

MEMORANDUM.

The naval air station at Akron, Ohio, was conducted for the training of free balloon, kite balloon, and dirigible pilots, as well as for experimental work in connection with lighter-than-air craft.

In August, 1919, the commanding officer reported that a course of instruction had been laid down for the instruction of the officers in the general duties of the Navy. It appears that three reserve officers of class 5 were attached to the school at that time, and it is significant to note that two of those officers passed the examination and were retained in their rank, that of lieutenant. They were Theodore C. Lonquest and Frank H. Sloman.

NOTE.—Lonquest was there in August and September, 1919. Sloman was there from November, 1918, to October, 1919.

UNITED STATES NAVAL AIR STATION,
Akron, Ohio, August 12, 1919.

From: Commanding officer.

To: Director of Naval Operations, Navy Department, Washington, D. C.

Subject: Instruction of officers.

Reference: (a) Nav-Air No. 82-171, dated July 21, 1919.

1. In compliance with the above reference a course of instruction has been laid down for the officers at this station in the following subjects: (a) Navigation; tactics and strategy; Navy Regulations and Instructions; meteorology and the theory of free ballooning.

2. Copies of (day's work) and other problems in navigation have been obtained from the head of the department of navigation at Annapolis, and these problems will be given to the officers in conjunction with textbook work in Bowdich. Such parts of Navy Regulations and Naval Instructions as are given midshipmen at the Naval Academy will be studied by the officers at this station. A request has been sent to the War College at Newport for a correspondence course in tactics and strategy and the subject will be studied from this course. Meteorology and the theory of free ballooning is required in the free balloon course, and the study of these subjects will be continued. It is believed better to confine the course of instructions to a few subjects until the officers have become familiar at least to an extent with these subjects rather than attempting a great many.

H. W. HOYT.

Senator WALSH. Is it not a fact that the school at Akron, Ohio, was a school for just what you said, for training men in lighter-than-air work, and there was no thought of training men for an examination any time during the year 1919?

The CHAIRMAN. The report states they had a school for training purposes.

Captain WILLIAMS. The report states they had a school for training men in aviation duties in lighter-than-air.

Senator WALSH. And the inference is suggested that by adding two men that passed they were there getting instruction in these subjects.

Captain WILLIAMS. The question raised was whether the statement made by the Navy Department was in error, that any school was established in

accordance with the directions given, and as to the accuracy of the statement that schools had been established. In reply to that I read this letter, which is signed by H. W. Hoyt, who, if my recollection serves me, was killed in the ZR-2, and consequently is not here to testify.

Senator WALSH. Of course, everybody who went there was an officer, to take the course in free ballooning. That was the place to which men were assigned, who were officers and specialists in lighter-than-air craft, and of course nobody but officers went to the school there, to familiarize themselves in this work.

The CHAIRMAN. And general instruction aside from that.

Senator WALSH. Yes. But I notice in that correspondence——

The CHAIRMAN. Is it your information there were only three in attendance? Evidently the instruction was given properly, because all three passed to the garde.

Senator WALSH. Our information, Mr. Chairman, and I have been trying to impress that point, is that there was absolutely no school ever established at Akron in the year 1919 to give any instructions in the subjects in which these men were examined later; that there was a school in operation there for the purpose of teaching men the science of navigating lighter-than-air craft, to impart a full knowledge about lighter-than-air craft; that such a school was maintained there and officers were instructed in that work, the same as there is a school maintained at Pensacola for the purpose of there training officers in heavier-than-air flying. That is the only school there was there.

The CHAIRMAN. Senator, you ought to submit evidence to prove that fact.

Senator WALSH. I claim that the Department itself indirectly supports my position.

Captain WILLIAMS. I fail to see what evidence I can produce other than what has been presented.

Senator WALSH. If they brought the honest facts here, there would be no dispute about it.

Captain WILLIAMS. Here is a letter from a officer who is unfortunately dead, and he says, "Reference: (a) Nav.-Air No. 82-171." "Reference: (a)" is this letter which has already been read, from the Director of Naval Aviation to commanding officers of all air stations.

Senator WALSH. Let me see that. Does not this letter say that schools will be established? Do they both say they are established and in operation?

Captain WILLIAMS. I am reading the letter which is a reply to that.

Senator WALSH. Will you read that reply?

Captain WILLIAMS. The reply is, "Reference: (a) Nav. Air No. 82-171, dated July 21, 1919"——

Senator WALSH. How could a reply dated at Washington, July 21 be made to a letter that was sent out July 21, from Akron, Ohio, the same day?

Captain WILLIAMS. There is no such thing. Senator; you misunderstand. This reference is a description of that letter.

Senator WALSH. Pardon me.

Captain WILLIAMS. You do not want me to read this whole letter, do you?

Senator WALSH. What is the date of that?

Captain WILLIAMS. It is in the record.

Senator WALSH. I want it all read, because I think it is very material as to whether there has been a misrepresentation, a substantial misrepresentation, here.

Captain WILLIAMS [reading]. "1. In compliance with the above reference, a course of instruction has been laid down for the officers at this station in the following subjects"——

Senator WALSH. What officers were at that station?

Captain WILLIAMS. My records show the list appended.

Senator WALSH. Were they student officers or were they officers who were going at some time or other to be transferred from the reserve force to the regular line?

Captain WILLIAMS. I do not think I get the point of your question.

Senator WALSH. Is there such a class as student officers?

Captain WILLIAMS. There were in some subjects.

Senator WALSH. The men who go to Pensacola are student officers.

Capt. WILLIAMS. You may call them so.

Senator WALSH. Is there any doubt about it?

The CHAIRMAN. I would like to know the distinction between a student officer and any other officer who is preparing for an examination.

Senator WALSH. Some of these are instructing officers and others student officers. The man who has to instruct officers is not a student officer, and the officer who is receiving instruction is not an instruction officer.

The CHAIRMAN. That is true. But these officers preparing for an examination to be transferred to the line of the Navy become student officers the moment they begin to take those courses, in my judgment.

Senator WALSH. Exactly, but I am discussing a situation at a central point that had been devoted by the Navy to the training of student officers in lighter-than-air craft, a knowledge of that work, and instruction in flying.

Captain WILLIAMS. Let me say that my record, which I think you have before you, does not state that Akron, Ohio, is devoted exclusively to such work.

The CHAIRMAN. Let me make a statement, and you can both stop me if I am not correct. You had a school of instruction at Akron, Oh'o—there is no question about that—at that time. You had present a certain number of temporary officers; you had there a certain number of reserve officers. A certain number of those temporary and reserve officers passed the examination that was held for the promotion to line officers.

Senator WALSH. If you are convinced that there was a 22-months school or a 20-months school or an 18-months school at Akron, Ohio, then there is no use of my spending any time on it. After following up case after case, Captain Williams says at last he has found Akron, which was one place where they started a 22-months school.

The CHAIRMAN. I do not know about a 22-months school; that is a different proposition. But that school evidently was established 22 months previously.

Senator WALSH. I am trying to show, if I may be permitted, that it is not the kind of a school which was contemplated for examination purposes. It was a student school, a so-called student school, where courses were given of instruction in lighter-than-air craft to those who went there to learn what they could about the navigation of lighter-than-air craft, and that is the only kind of a school it was. It was not a school that was established for the purpose of training these reserve officers for this examination.

Senator KEYES. Senator Walsh, perhaps I got the wrong impression, but I thought, from the letter that Captain Williams was just reading, the commanding officer there had taken pains to provide additional instruction in view of this order that had been issued by the department.

Captain WILLIAMS. He so states in his letter.

Senator WALSH. But it does not say he did it.

The CHAIRMAN. No; the letter says he did it.

Captain WILLIAMS. He states it has been done.

Senator WALSH. Proceed with the letter.

Captain WILLIAMS [reading]: "1. In compliance with the above reference, a course of instruction has been laid down"—

That is in compliance with the reference to this order of which we speak. "at this station in the following subjects:

"(a) Navigation; tactics and strategy; naval regulation and instruction; meteorology and the theory of free ballooning.

"2. Copies of (day's work) and other problems in navigation have been obtained from the head of the department of navigation at Annapolis and these problems will be given to the officers in conjunction with the textbook work in Bowdich."

Bowdich is a textbook in navigation.

Senator WALSH. Wait a moment—"will be given."

The CHAIRMAN. But it starts out by stating it has been.

Senator WALSH. A course has been laid down and instruction will be given. There is a difference between laying down a course and instruction will be given, and doing it—establishing a school. The reports from every one of these officers at these stations go on to give the same coloring that this letter gives, that there were schools equipped and going on there. Upon reading a report from these stations you would think they had regular schools established there, when the testimony shows, for instance, as was brought out yesterday, that 35 minutes' instruction was given at one of these places. Yet, if you read the report of the officer, he had a fine, first-class school running there. It will appear that at Pensacola they never had but a half hour a day instruction. I say there is a difference between laying down a course and saying instruction will be given, and actually doing it.

The CHAIRMAN. That letter says it has been established.

Senator WALSH. Where does it say so?

The CHAIRMAN. At the start.

Senator WALSH. Let us hear it.

Captain WILLIAMS (reading): "In compliance with the above reference a course of instruction has been laid down for the officers at this station."

Senator WALSH. What does "has been laid down" mean? A course of instruction has been laid down. A syllabus might have been issued; that is laying down a course of instruction for men to study in their own private rooms.

Captain WILLIAMS. I submit this—

Senator WALSH. I do not like to be unduly insistent upon it, but I have to follow up this evidence in view of the information that comes to me from the men who were there.

The CHAIRMAN. Have you men present who were there at that school?

Senator WALSH. Yes; we have.

The CHAIRMAN. What time were they there?

Senator WALSH. This man, Lieutenant Bradford, was there in 1918. They had a school running there in 1918.

Captain WILLIAMS. Did they teach navigation in 1918?

Lieutenant BRADFORD. As far as it was connected with aviation.

Captain WILLIAMS. Was this the same kind of school in 1918 that they had in 1919?

Lieutenant BRADFORD. I was not there in 1919.

Captain WILLIAMS. Was it the same kind of school as that described there?

Lieutenant BRADFORD. It was a school which pertained to aviation subjects.

Captain WILLIAMS. Was it the same kind of school as that described in that letter in 1918? Did they teach tactics and strategy?

Lieutenant BRADFORD. No, sir; not tactics and strategy.

Captain WILLIAMS. I have nothing else.

The CHAIRMAN. If that letter means anything, it simply means that they had a school there and that they established these additional studies to prepare the boys for this examination. I do not know anything further than just the evidence which is submitted, but that would be my construction of the evidence.

Captain WILLIAMS. No matter what the writer or the author of this letter intended to do, we really must believe his intentions were of the best, and he certainly tried to convey the idea to the department that he was carrying out directions. We can not question his motives; he is dead.

Senator WALSH. Let us see what this statement is, that a school was established in subjects especially for reserve officers:

"In August, 1919, the commanding officer reported that a course of instruction had been laid down for instruction of the officers in the general duties of the Navy. It appears that three reserve officers of class 5 were attached to the school at that time."

So you are attempting to say a school was established for three men with these courses of instruction; that an application had been made to Annapolis for special books and special lecture courses in order that these three men could have a special school created for them at Akron. Is that your contention? Or is it there were students there who were being trained in free ballooning, and in connection with free balloon training these other subjects were added for their benefit and for the expansion of the work of the school.

Captain WILLIAMS. You are getting too fine for me. I think the case is covered. You will remember that when I was reading the statement prepared by the department, in reply to Senator Walsh's resolution, it came to a statement in which it was said that schools were established. That statement he questioned. In refutation of that questioning, I offer this statement, that a school was established at Akron, Ohio.

I also have submitted to the committee an official report, a station order, of a school established at Pearl Harbor on March 1, 1920.

Senator WALSH. Will you state who were the officers that were being assigned to Akron, Ohio, in 1919?

Captain WILLIAMS. You mean what class of officers?

Senator WALSH. Yes.

Captain WILLIAMS. I will obtain it for you.

Senator WALSH. Is there any doubt that Regular Navy officers, graduates of Annapolis, were being sent out to Akron the same as men were being sent to Pensacola to be trained in lighter-than-air navigation?

Captain WILLIAMS. I think my memorandum gives the list there, does it not, of the temporaries and reserves? My recollection is there were six temporaries and six reserves.

The CHAIRMAN. Even though that was a school for that purpose, if they gave the reserve officers that were stationed there an opportunity to take this course at that time, then they were giving all they had promised to give. If they had failed to instruct them in navigation and the other branches that would come up in this examination, and the boys stationed there were trained only in aviation, then the department would be at fault in not giving those boys an opportunity for such preparation.

Captain WILLIAMS. But there was.

The CHAIRMAN. But evidence is submitted showing they did teach those things; that these boys were preparing for that examination; that they were present; that they did have such opportunity; and the fact you say only three boys were present, and the further fact that three boys passed their grade, would tend to bear that out.

Senator WALSH. It is more than that, and I say this dispassionately, and I leave it to your fairness, Mr. Chairman, that a reading of the report sent to this committee by the Secretary of the Navy and these other reports that have been presented indicates an attempt has been made here to show that these men got a 22 months' course of preparation.

Captain WILLIAMS. I have had no intention of giving any such impression. I want to deny that statement. If Senator Walsh has got that impression, I say it was not my intention to give any such impression.

Senator WALSH. All right. I will read now the Secretary's letter.

Captain WILLIAMS. I publicly deny any intention of giving such an impression.

Senator WALSH. Let me read again the Secretary's letter sent to this committee. While I am waiting for them to find a copy of that letter I say the impression has been given the committee that schools were established. I am able to get testimony from Pensacola, to get testimony from Hampton Roads, to get testimony from the fleet, to get testimony from other stations, but I am unable to get any from Akron, because no such school was ever established, and that is why I am unable to get it, because it was the same kind of a letter that these other commanding officers were sending in, that they were going to give these courses of study.

There is not a man in the Navy that you can produce, or anybody else, to say that there was ever such a school established for the preparation of these men for this examination in 1919 at Akron, no matter what that report says. There was a school there, and it was extended and enlarged, in which men were being trained, most of them Annapolis men, in lighter-than-air craft, and when that notice went out the commanding officer expanded his courses of study, undoubtedly. I do not question there was a school there, but it was continuously in session; it was in session long after that, and it was in session before that—the same as there is a school now in Pensacola for instruction in heavier-than-air craft.

The CHAIRMAN. Even though that be true, what effect would it have, Senator?

Senator WALSH. The only reason this is offered is to show that at last they have found one place where for 25 months there has been a school.

Captain WILLIAMS. Not at all.

Senator WALSH. Why is it submitted?

Captain WILLIAMS. It is offered to prove there was a school established.

The CHAIRMAN. The evidence was offered merely to show that where there was opportunity they instituted this instruction as early as possible. There does not need to be any misunderstanding.

Senator WALSH. I suppose one of the vital things of my case is to show what kind of schools they were, whether in fact they were instructing, regardless of these documents, and what was the nature of the course given to these men. The reason for this pressing cross-examination is that I can not find a student anywhere that got any such course of instruction. Therefore I must examine closely to find out who was there and received these courses of instruction that are claimed to have been established.

Captain WILLIAMS. In examining into this question of schools, Senator, have you confined your investigation solely to those who failed in the examination, or have you investigated some who passed?

Senator WALSH. I have examined some who have passed; some of them are here, and some have appeared as witnesses; here [indicating] is a man that

passed, and he is a witness. There are three or four more here that passed. Here [indicating] is another man that passed. I have letters on my desk from men who passed who are going to leave the Navy.

The CHAIRMAN. Senator, you can solve this whole question by finding out whether those three men who are mentioned in that letter, who passed, who were students there at the time, and whom the department claims took this instruction—find out from those men who passed whether that instruction was given.

Senator WALSH. But if I can not challenge a letter, if I can not challenge statements as I did yesterday, and look at these records, in the name of these young men, I might as well get out of this room. If this case is going to be decided upon the reports of officers, we are fooling away our time. There is not a report that has been offered which has not been rosy, which has not been bright, which has not given the impression that schools were in full blast, with courses prepared for the instruction of these young men. It is the testimony of these young men that has broken down the—

Captain WILLIAMS. I can only reply in your own words—

Senator WALSH. We might as well get out of here if the records of the Navy are to be taken. If I can not challenge these statements, if there is nobody to make a protest—

Captain WILLIAMS. I can only reply in your own language—that is what I have to offer, and that is what I base my opinion on.

Senator WALSH. How would we ever have known or found out what really had happened if we had not been able to delve into these records and to produce our testimony?

Senator KEYES. Senator, I think, honestly, you are not quite fair in that statement. There is no more reason to say that the statements of the Navy men are rosy than are the statements of some of these witnesses, possibly. The Navy records were made two years ago, before an investigation was suggested.

Senator WALSH. I must say that the reading of the reports setting up the establishment of these schools indicates that every opportunity possible was given to these boys.

Senator KEYES. I do not get that idea at all.

Captain WILLIAMS. I have been through many examinations, I have been nearly 40 years subject to examination, and on very few occasions (I should say at the Naval Academy is the only exception I think of) has anybody felt impelled to see that I was thoroughly, sufficiently, and entirely instructed, and to take the responsibility for the result, because I was not completely instructed. That is a lack of initiative, a question of my initiative, of my energy, etc., which certainly I have always considered as up to me personally.

I have never been relieved from duty to take examinations, and I have had some pretty stiff ones, that have not been in the line of my duty, and some that were extremely difficult, written, verbal, and otherwise. I have had jobs thrust on me that I was not prepared for. I do not think you can expect otherwise. That is the way I look at it.

Senator WALSH. You were given four years of preparation at the expense of the Government to get groundwork.

Captain WILLIAMS. Yes; that is true.

Senator WALSH. May I have those letters introduced in evidence from commanding officers stating what they did to establish schools?

Captain WILLIAMS. They are in the record now.

Senator WALSH. Have you copies of them that I can use?

Captain WILLIAMS. Yes.

Senator WALSH. I will refer to them as I put in the testimony in each case with regard to the kind of schools that there established.

I want to again call attention, if I may, to the letter I referred to in the beginning, and the reason why this discussion is being pressed by me.

"In July, 1919, nearly one year before the passage of the act authorizing the transfer to the line of the Navy of temporary and reserve officers, and 22 months before the examinations for transfer were held, the Director of Naval Aviation issued a circular letter to the commanding officers of all naval air stations and naval aviation detachments, inviting attention to the opportunities that existed at that time for the instruction of aviation officers in regular line duties, in order that the latter might be better prepared for examination for transfer when the necessary legislation should be enacted.

"In accordance with this circular letter courses of instruction for aviation officers were established, and officers were given every opportunity and assistance to qualify for the general duties of the line.

TESTIMONY OF ENSIGN EDGAR WILLIAM SHEPPARD, UNITED STATES NAVY—Resumed.

Senator WALSH. At the conclusion of your testimony yesterday, Lieutenant Sheppard, I think you asked to have your examination papers produced?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. Have you had an opportunity to inspect them?

Ensign SHEPPARD. No, sir.

Senator WALSH. What did you want to say about them?

Ensign SHEPPARD. I just would like to submit them to the committee, so that they may check over them and see if the English is poor, see if the punctuation is poor. I think the impression was given yesterday that I was careless in submitting my examination; that I had made a large number of mistakes.

The CHAIRMAN. That is very different from the impression that I got, as one member of the committee. You passed more on your record than anything else.

Ensign SHEPPARD. I mean the record of the examination.

Senator WALSH. He means experience and former training, previous education. What was your mark in previous education?

Ensign SHEPPARD. 2.96.

The CHAIRMAN. You do not mean your record, in that statement?

Ensign SHEPPARD. No; I mean the examination, general education.

The CHAIRMAN. That is a different proposition. You were given 3 on your record, as I understand.

Ensign SHEPPARD. 3.7, one of the highest marks awarded. I understand.

Admiral BRYAN. His mark on general education was 2.96; that is about 74 per cent.

Ensign SHEPPARD. I assumed the impression was given that the reason I did not get more than 2.96 on previous education or general education was carelessness in punctuation, English, and penmanship. I should like to have the committee inspect this report of the examination; and I would like to call attention to a sketch, a free-hand sketch, of a B and W boiler, which is a part of this examination.

The CHAIRMAN. Those are your examination papers?

Ensign SHEPPARD. Yes, sir. I do not believe a man could be careless and submit such a sketch.

Senator WALSH. What paper is it in?

Ensign SHEPPARD. In engineering. I have had three years of university training, and I do believe I should get a higher mark than 2.96 on general education.

Senator WALSH. You were within one year of a college degree?

Ensign SHEPPARD. Yes, sir. This [indicating] is the sketch. I do not believe a man could be careless and submit such a sketch as that. It evidently was believed to be good by the examining board, because there is a remark there, "A very pretty sketch."

The CHAIRMAN. I would assume they took all of your examination papers in consideration in marking your general English.

Ensign SHEPPARD. Yes, sir. That is why I should like to have the committee look over these papers, to see the penmanship, English, and punctuation.

Senator WALSH. Have you any other papers there?

Ensign SHEPPARD. There [indicating] is another sheet.

Senator WALSH. So you protest against the mark of 2.9 out of a possible 4 on your penmanship, grammar, and spelling, the use of capital letters, sketches, and the general appearance of your papers?

Ensign SHEPPARD. I do believe I warrant a higher mark by reason of previous education.

Senator KEYES. I would like to ask Mr. Sheppard just what bearing that has on the whole question. Suppose you had received 100 per cent on previous education, what would have been your status? Do you say you believe you then would have been transferred with your rank; is that your idea?

Ensign SHEPPARD. Yes, sir.

Admiral BRYAN. No. His status would have been the same, if he was satisfactory on that subject.

Senator KEYES. I understand you are not intending to stay in the Navy; that you have been transferred to a lower rank.

Ensign SHEPPARD. It is impossible for me to stay in the Navy with my present rank.

Senator KEYES. My point is this. Suppose your mark were increased by any chance on previous education, would that make any difference in the whole situation that is confronting you now?

Ensign SHEPPARD. I believe it would, sir. I am not familiar with the procedure.

Senator KEYES. That is what I want to find out.

Admiral BRYAN. He is mistaken; it would not.

Senator WALSH. I suppose he claims that if they marked him 2.9 when he should have gotten 3.5, for instance, that something might have happened. In all the other examination papers he calls attention to the fact that the marking system was so poor that on a paper of the character he presents he got only 2.9, which is equivalent to 74 per cent.

Ensign SHEPPARD. Just a trifle over passing. And I believe the statement was made before the committee that that mark had been given because of poor spelling and punctuation and carelessness in submitting my paper.

Senator KEYES. Was that a general statement applying to all the papers, or to yours particularly?

Ensign SHEPPARD. I inferred it applied to my individual paper. That is why I want to correct that impression.

Admiral BRYAN. No; that did not apply to his individual paper.

Senator KEYES. That was my understanding.

Admiral BRYAN. My statement was that was the way that general education was marked.

Senator KEYES. That is what I understood, that the admiral had not in mind your particular paper.

Admiral BRYAN. I knew nothing personally about his paper.

Senator WALSH. What was the subject you say you specialized in, and was asked to give a course of instruction in, at Great Lakes?

Ensign SHEPPARD. Engineering.

Senator WALSH. What mark did you get in that?

Ensign SHEPPARD. 2.58.

The CHAIRMAN. Senator, I would like to ask you what contention you are making here. Is it your contention that the boys were discriminated against in the marking of the papers, or that they had not sufficient opportunity to prepare? Do you charge, in other words, a discrimination in the marking?

Senator WALSH. Yes, sir; I do.

The CHAIRMAN. You do?

Senator WALSH. There is no doubt about it. Was it not proved yesterday when the marking was changed on this man's paper? Is not that a discrimination?

The CHAIRMAN. How do you make that out if there was a larger percentage of aviators passing than any of the other classes?

Senator WALSH. I do not know that; I have not got that yet. I have not got the figures of the others.

Admiral BRYAN. I passed them in yesterday.

Senator WALSH. What was the number that passed originally of reserve officers, that were not in aviation?

Admiral BRYAN. It is there. I think it was 86.

The CHAIRMAN. It was filed yesterday.

Admiral BRYAN. There was a larger percentage of those in aviation that passed than those in the other classes.

Senator WALSH. I have always said and felt, and I have heard it from regular naval men, that the best personnel in the late war was the Naval Reserve officers in the Aviation Corps. I have heard that generally commented upon throughout the war, that the Navy was able to get into the Aviation Corps the very best personnel, the highest class of American youth. Therefore, of course, there ought to have been a larger percentage of them to pass.

I am trying to show now the difficulty of the examination. Here is a man, an expert in one particular subject, selected to give instruction in that one subject, and he barely passed. I am going to follow that up by asking him what kind of examination it was. He is an expert on that particular subject, and so recognized by the Government, and yet he barely gets a passing mark.

The CHAIRMAN. He was not an expert in all the different branches.

Senator WALSH. I have asked him only about one.

The CHAIRMAN. He passed in that, did he not?

Senator WALSH. He barely passed, 2.5, which is the passing mark.

The CHAIRMAN. In what branch?

Ensign SHEPPARD. 2.58 in engineering.

Senator WALSH. That is the particular subject in which he was an expert, and the subject about which it is generally admitted he knows more, motor engineering, than any other man in the service possibly.

Captain WILLIAMS. Were you examined in motor engineering alone?

Ensign SHEPPARD. Marine engineering.

Captain WILLIAMS. A very different thing.

Ensign SHEPPARD. I do not believe it would be possible for any man who had not had the benefit of a college training to pass that examination in marine engineering, a man who had not had a fundamental engineering knowledge.

Captain WILLIAMS. Did you take the examination in aeronautics?

Ensign SHEPPARD. No, sir. I did not. I desired to qualify for a line officer without reservation on the recommendation of my commanding officers. I have proven beyond question of doubt that I am qualified in aeronautics, having been superintendent of the Aviation Mechanics' School, the greatest school of its kind in the world; and you will find by my fitness reports here that a greater part of the credit for the establishment of that school was given me by my commanding officer, Lieut. E. E. Wilson, and I believe you know Mr. Wilson to be one of the best engineers in the service.

Captain WILLIAMS. I wish you would tell me this please. I am convinced you worked to pass this examination; am I not right?

Ensign SHEPPARD. I did work.

Captain WILLIAMS. How hard did you work?

Ensign SHEPPARD. I gave every minute of time that I possibly could.

Captain WILLIAMS. You passed with a lower rank?

Ensign SHEPPARD. A very low rank, considering my previous experience; in other words, four years of excellent service.

Captain WILLIAMS. Can you give us an idea of how much time you used in your preparation, night and day?

Ensign SHEPPARD. It was impossible with a command of 3,000 men to use the day.

Captain WILLIAMS. What time did you use in preparing yourself for this examination? I am convinced you worked hard.

Ensign SHEPPARD. From 9 o'clock at night until 4 o'clock in the morning. For three months of the time allotted to study I was assigned to duty in Washington, in connection with the establishment of a machinist's mate general school in order to qualify machinists' mates for the general service.

Senator WALSH. Have you anything further to say about the examination in engineering?

Admiral BRYAN. Mr. Chairman, may I ask a few questions of this gentleman?

Senator WALSH. Will you wait until I get through, or do you want to break in now?

Admiral BRYAN. It is on this same subject.

Senator WALSH. Very well.

Admiral BRYAN. I am willing to wait, however.

Senator WALSH. Go ahead.

Admiral BRYAN. This gentleman says he does not believe that anybody could have passed this examination without a college course. I would like to ask him what particular questions he refers to in that statement?

The first question was this:

"Name the materials most used in marine engineering, their characteristics, and the purposes for which they are best fitted."

I think most anybody ought to know that that knows anything about marine engineering.

Ensign SHEPPARD. Can you pick any man here, other than an expert, who can tell you the characteristics of steel?

Admiral BRYAN. They ought to know that in connection with ordnance.

Ensign SHEPPARD. Absolutely they should, but do they?

Admiral BRYAN. Most of them do; yes, sir.

Ensign SHEPPARD. No, sir.

Admiral BRYAN. It is a very common question.

Ensign SHEPPARD. It may be a common question, sir.

Admiral BRYAN. Would you consider yourself a marine engineer if you did not know what iron was made, and its characteristics?

Ensign SHEPPARD. I would not consider myself a marine engineer unless I had had previous training. There are land engineers and there are marine engineers.

Admiral BRYAN. I think you consider yourself an engineer of some special kind.

Ensign SHEPPARD. I do, by reason of my college training.

Admiral BRYAN. You were unsatisfactory, however, in this examination.

Ensign SHEPPARD. Quite so, according to the marking.

Admiral BRYAN. You got a low mark; that is right. I do not consider it necessary, however, to have a college education for that at all.

Another question is:

"Sketch free hand and describe a Babcock & Wilcox boiler as used in the ships of the Navy, showing clearly the different parts," which you did. I do not think a college education necessary for that.

Ensign SHEPPARD. All right; pick some man at random without mechanical engineering training and ask him to sketch a B. & W. boiler.

Admiral BRYAN. These are questions that are asked practically all line officers. I can not say the same questions, but similar questions. I do not think it requires a college education for that at all. The same questions are asked machinists, and very few of them have had a college education, and some very little education of any kind.

Ensign SHEPPARD. But a man to become a machinist, or a chief machinist, has had years of service in the Navy.

Admiral BRYAN. He has.

Ensign SHEPPARD. Which is the equivalent of a college education.

Admiral BRYAN. You spoke of a college education, and I wanted to make it clear that these were largely practical questions and did not require a college education to answer them.

Ensign SHEPPARD. Annapolis men are college men.

Admiral BRYAN. Machinists are not Annapolis men or college men.

Ensign SHEPPARD. They have been constantly under the schooling of Annapolis men.

Admiral BRYAN. No; it is not from that; it is from their practical experience.

Ensign SHEPPARD. Pardon me, Admiral, but you will find that same question given in an examination for permanent lieutenant commanders—to sketch a B. & W. boiler.

Admiral BRYAN. Yes; that is given to all of them, to show their familiarity with the subject. That is one of the questions given to all.

The third question is to describe a steam turbine used for motive power of a naval vessel. It is required that all line officers have to do engineering duty, they have the care of the engines and machinery, and they should know about steam turbines. I do not think it requires a college education to know about a steam turbine.

Ensign SHEPPARD. They certainly get a wonderful course in that at Annapolis.

Admiral BRYAN. But these questions, as I say, are questions given to machinists who have had, some of them, practically no education or very little.

The next question is to describe an evaporating and distilling plant for a naval vessel. That is a plant upon which you are dependent for fresh water for drinking purposes and for other purposes. I do not think it requires a college education to describe that.

Ensign SHEPPARD. Admiral, do you conscientiously believe that a man in nine months of study of text-books could get an operating or a fundamental knowledge of the principles of turbines, condensing systems, boilers, and other mechanical equipment as used by the United States Navy, reading it from a text-book?

Admiral BRYAN. Yes.

Ensign SHEPPARD. Unless he had had previous mechanical engineering training?

Admiral BRYAN. Yes; I think he could. I think he could get these questions. I would not like to say that, of course, about all. Some men could and some men could not, probably. But I do not consider that is the case in point. The case in point is that these questions are the same questions that are asked men who are under examination for promotion to these grades. Our instructions were to give a similar examination, which we did.

Ensign SHEPPARD. If it were possible, sir, for men to qualify in nine months for engineering duty aboard our battleships, then it is an absolute waste of money to maintain Annapolis.

Admiral BRYAN. No; you are mistaken about that.

Ensign SHEPPARD. You can take a civilian.

Admiral BRYAN. He qualifies in a great many other things.

Ensign SHEPPARD. In four years he qualifies for what the reserve officers are called upon to qualify for in nine months, and without instructors in many instances.

Admiral BRYAN. I have nothing to do with that part of it. I am merely making the statement that you are wrong in saying a college course was required to answer these questions.

Ensign SHEPPARD. Pardon me, Admiral. I maintain a man must have a fundamental knowledge of engineering to be acquired in a school or by years of actual experience.

Admiral BRYAN. Ah, that is different.

Ensign SHEPPARD. Years of experience, now.

Admiral BRYAN. You said he had to have a college course.

Ensign SHEPPARD. Or an equivalent. How many chief machinists have you in the Navy who are not graduate possibly of international correspondence courses?

Admiral BRYAN. Of course, I can not tell you about that.

Ensign SHEPPARD. You will find your best machinists, your best chief machinists, are graduates either of Navy training schools or international correspondence courses.

Admiral BRYAN. It may be; I know some of them are. I know also a great many of them are not.

The last question in this is to state the duties and responsibilities of engineer officers: (a) Preparatory to coaling ship; (b) while taking coal on board; and (c) in regard to coal after receipt.

I can not see exactly what bearing a college course has on that question.

Ensign SHEPPARD. Years of experience would be required to get that knowledge.

Admiral BRYAN. No; anybody that had been aboard ship at all would know.

Ensign SHEPPARD. That is quite correct, sir; I agree with you. But this examination was given to aviation officers, men who had never been aboard ships.

Admiral BRYAN. But it was given to aviation officers to ascertain their qualifications for lieutenant (junior grade), ensign, and lieutenant in the permanent line.

Ensign SHEPPARD. Take my own individual case. I have never been on board a battleship. What opportunity did I have to qualify or to make myself fit to answer that question? You know aboard ship are a thousand and one things that come up for an engineering knowledge, knowledge of which you must acquire by actual experience. You can not read it from textbooks. You must have had actual experience in it.

Admiral BRYAN. You are wrong about that.

Ensign SHEPPARD. You can answer it in a haphazard fashion, just as given in these "gouges," which every officer going up for examination works on. That is not a sign he is familiar with the topic. That is an old stock question.

Admiral BRYAN. Yes; all those are old stock questions. If most of the officers—I am not referring to you—had applied themselves and made an effort to study up on these subjects, they could have passed this examination, either from correspondence courses or from what they could pick up with textbooks.

Ensign SHEPPARD. I may be especially thick and may lack initiative, but I know that I put in every minute of time that I possibly could in this study and carry on my regular duties, and I know it was impossible for me, with the basis of a fundamental college education, to pass in it.

Senator WALSH. And your whole life training in school was along scientific lines?

Ensign SHEPPARD. Yes.

Senator WALSH. Those were the courses of study you took at George Washington University, were they not?

Ensign SHEPPARD. I know in my individual case I did everything I possibly could to pass it.

Senator WALSH. Were you through, Admiral?

Admiral BRYAN. Yes.

Senator WALSH. May I ask you now, Admiral, this: I understood you to say yesterday that all men who passed in all subjects were given the rank for which they applied.

Admiral BRYAN. Yes, sir.

Senator WALSH. Only 23 men passed originally in all subjects.

Admiral BRYAN. Of the Naval Reserve Flying Corps.

Senator WALSH. Of the Naval Reserve Flying Corps?

Admiral BRYAN. Yes.

Senator WALSH. Yet you gave 50 men the rank of lieutenant, junior grade, did you not, lieutenant, senior grade?

Admiral BRYAN. Yes, I believe that is so.

Senator WALSH. So that in that 50 were some men who passed in all subjects, and some men who failed in some subjects.

Admiral BRYAN. Yes.

Senator WALSH. Do you think that is fair to these men?

Admiral BRYAN. To which men?

Senator WALSH. To the men that passed in all subjects to have the men who failed in some subjects given the same rank?

Admiral BRYAN. Yes, sir; undoubtedly. It could in no way do them any harm. The law required those men to stay in the position. In the rotation that they occupied. It could do them no harm to give another man a passing mark in his grade if he failed in one subject or more than one subject, because they retained their exact order on the list.

Senator WALSH. If a man applied for lieutenant junior grade and passed in all subjects, it is not fair to him to give him only lieutenant junior grade, and give a man who failed in some subject, and who applied for lieutenant senior grade, that rank.

Admiral BRYAN. I agree with you in that, I think you are right about that, but the law requires him to stay in that position.

Senator WALSH. In the regular Navy the percentage mark in examinations is a factor in one's rank, is it not?

Admiral BRYAN. Not after he leaves the Naval Academy.

Senator WALSH. So that when they leave the Naval Academy and their record is commenced officially, the mark which that student had at the Naval Academy heads his record.

Admiral BRYAN. Yes, sir, at the Naval Academy.

Senator WALSH. Why should not the marks of these young men who have passed these examinations be retained to designate their particular rank or their position in the rank?

Admiral BRYAN. That is the law, that they should take their regular order according to the way they stood on the list.

Senator WALSH. All these young men that have been made lieutenants senior grade have been received into the Navy as one unit?

Admiral BRYAN. Yes.

Senator WALSH. And there is no distinction between those that stood high and those that stood low?

Admiral BRYAN. Except if they are in the Reserve Corps. they go according to their standing in the Reserve Corps.

Senator WALSH. There is nothing in this examination to indicate whether the man that passed the highest examination will be promoted to the next higher grade sooner than the man who passed the lower examination?

Admiral BRYAN. Only his position on the list as it was when he took the examination.

The CHAIRMAN. Admiral, are you on the board that conducts the examinations for promotion?

Admiral BRYAN. Yes, sir.

The CHAIRMAN. In those examinations of line officers for promotion, have you ever shown the same leniency in marks that you have shown in this case?

Admiral BRYAN. Oh, no, sir; never. It was the feeling of the board that it was the desire of Congress to take as many of these gentlemen as could be made service of.

The CHAIRMAN. Suppose this had been an examination of graduates of Annapolis for promotion, say, to lieutenant commander, and you had graded them as you graded them first in this case.

Admiral BRYAN. Yes.

The CHAIRMAN. With only 27 passing, was it?

Admiral BRYAN. There were 109 altogether; there were 23 aviators.

The CHAIRMAN. Would you have further considered their papers?

Admiral BRYAN. They never would have come up in a competitive way after they left Annapolis. It would be a question as to whether they were satisfactory or they were not satisfactory.

The CHAIRMAN. They would have been compelled to wait and take another examination.

Admiral BRYAN. If they were not satisfactory in all subjects.

The CHAIRMAN. They had to pass in all subjects.

Admiral BRYAN. Yes; they have to get 2.5, or 62½ per cent, in all subjects.

The CHAIRMAN. For these officers you made the concession that they might fail in one minor subject and one major subject and still pass at their grade.

Admiral BRYAN. Yes, sir. All our concessions were made in favor of these officers. We made these various rules, which were rules not merely of what would not pass a man, but our agreement was we would make a general rule to pass everybody that fulfilled that rule. Then finally after we had worked 20 days on this thing and gone over these cards, and gone over them again, we said, "Now, we will check off and see the final result." Then we said, "There are some people here who have excellent records whom we might be justified in passing under special rules."

So in the case of Lieutenant Sheppard here we found that his record was so excellent, he had done so many things, that we believed he ought to be passed, that he could be retained in the service, and if given a junior place he could make up the subjects in which he was deficient. It is like conditioning for college. We therefore passed him. We said, "Shall we make a new rule for this man?" We said, "No; we won't; he has better marks, better than the others that have failed in electricity. It is a hard subject, and we will consider him satisfactory in electricity."

The CHAIRMAN. Were these papers all the same for the junior lieutenants and the senior lieutenants?

Admiral BRYAN. Yes, sir; all the same.

The CHAIRMAN. And for lieutenant commander?

Admiral BRYAN. All the same; yes, sir.

The CHAIRMAN. In your examinations for promotion those questions differ, do they not, in the regular line duty?

Admiral BRYAN. They do not differ in the subjects that I have, which are electricity and engineering. I think there is very little difference in navigation and ordnance and gunnery. I think the main difference comes in the higher grades, in strategy and tactics, and these officers did not have that.

The CHAIRMAN. But in the branch in which these boys were examined.

Admiral BRYAN. I would not like to make that statement definitely, but I will say that is my opinion. I would not like to give my judgment as to what the other officers are given, but I know they are the same for the officers I examined. They are only required to keep up to a standard, and if they know that standard it is just the same.

I have made one mistake. I did not recollect the law. Under the law if an officer who has been selected by the selection board and is an officer above the grade of lieutenant commander fails in his profession, he is never allowed to be promoted thereafter. That is the law.

The CHAIRMAN. That is the law now?

Admiral BRYAN. Yes, sir; August 29, 1916.

The CHAIRMAN. Is not that a hardship?

Admiral BRYAN. That is a very great hardship. If a man fails he is never again allowed to be selected.

Senator WALSH. If he fails once.

Admiral BRYAN. Yes.

Senator WALSH. Let me call your attention to some of these cards that you have submitted to me. Lieut. George T. Owen—what rank has he been given?

Admiral BRYAN. I do not know. You will see at the bottom of the card.

Senator WALSH. Lieutenant. That is senior grade?

Admiral BRYAN. Yes.

Senator WALSH. Lieut. George T. Owen, according to these marks here, failed in naval regulations, one subject; failed in military law, two subjects; and failed in electricity, three subjects.

Admiral BRYAN. Yes, sir.

Senator WALSH. And yet you made him a lieutenant, senior grade?

Admiral BRYAN. Will you let me look at the card. In electricity these officers were making such poor marks that we considered a two satisfactory; that is, we raised it 25 per cent. We considered it was too hard for this class

of officers, and we gave them the benefit of that. So you will see by doing that he was unsatisfactory in only two subjects.

Senator WALSH. So this record shows that you changed the marking for this man in electricity?

Admiral BRYAN. Yes, sir.

Senator WALSH. In the same way you changed the marking of Lieutenant Sheppard?

Admiral BRYAN. No, sir; not in the same way. We considered that on account of the difficulties these people were experiencing the board would be satisfied with a two—that is, we raised the examination 25 per cent. You must understand, Senator, it is very difficult to get at just how much time these questions will take. These men were limited as to time, so many hours. In my sections I took the cases of about 100 officers that I had timed, and I timed that examination so that the average would have gotten through in that time. But I noticed as to some of the others, in aviation, that that was too long, and we lowered that standard, too.

Senator WALSH. The fact of the matter is that this man originally failed in three subjects?

Admiral BRYAN. Yes, sir.

Senator WALSH. And he got as high a rank as the man that passed in all subjects?

Admiral BRYAN. That is true.

Senator WALSH. You changed the marking in one subject, namely, electricity, from 2.1 to 2.5?

Admiral BRYAN. Yes.

Senator WALSH. You also changed the rank; originally you gave him lieutenant junior grade and changed it to lieutenant senior grade?

Admiral BRYAN. Yes, sir.

Senator WALSH. And that is signed by the president of the board?

Admiral BRYAN. Yes, sir.

Senator WALSH. Is it not a fact that young men who took the examination and who failed in three subjects, the same as Owen, were made only ensigns?

Admiral BRYAN. I think that is what we intended to do.

Senator WALSH. I call your attention now to the card of Cecil F. Harper, made lieutenant, junior grade. Harper's card shows that without any change or altering whatever he originally passed every single subject.

Admiral BRYAN. Let me see it. That must be a mistake, if that is the case.

Senator WALSH. With the possible exception of electricity, in which he got 2.35.

Admiral BRYAN. No, sir; he failed in his electricity, and he did not get a satisfactory mark originally in aviation. That was his specialty.

Senator WALSH. His mark here shows 2.89 in aeronautics?

Admiral BRYAN. We raised those marks, but his original mark was not satisfactory.

Senator WALSH. It looks to me, if I can read this correctly, that his original mark was 2.5, which is the passing mark. Is that right? Is that 2.5, which is the passing mark, underneath there? [Indicating.]

Admiral BRYAN. It is pretty hard to tell. If it is put in in red, it means it was not satisfactory. I can not tell you about that. I would have to see the other records.

Senator WALSH. Here is the card of Owen again, to which I have just referred. His mark was 2.9 in aviation, and you raised it to 3.6.

Admiral BRYAN. That is 25 per cent.

Senator WALSH. That is 2.5, which is the passing mark, raised to what?

Admiral BRYAN. I do not know whether that is 2.5 or not. The indication is, that being put in red, it was an unsatisfactory mark, less than 2.5. I can look at another card and let you know. We were very strict about people who did not show ability in their own specialty.

Senator WALSH. Does red show a failing mark?

Admiral BRYAN. Yes, sir.

Senator WALSH. Then Owen, who was made lieutenant, senior grade, has three red marks on his card?

Admiral BRYAN. Yes, sir.

Senator WALSH. That is true?

Admiral BRYAN. Yes; I guess it is.

Senator WALSH. And Harper, who is made lieutenant, junior grade, has two red marks on his card. That is true?

Admiral BRYAN. Yes, sir.

Senator WALSH. How do you explain that?

Admiral BRYAN. That Harper did not show proficiency in his specialty.

Senator WALSH. Why did you require him to be more proficient in his specialty?

Admiral BRYAN. Because he is supposed to know more about it, and it was an indication that he was not well up in other things if he was not well up in his specialty.

Mr. SCHUYLER. Was not Harper a lieutenant, junior grade, at the time of the examination?

Senator WALSH. Yes; I think he was.

Mr. SCHUYLER. Then, he could not be raised to lieutenant, senior grade. He was marked to retain his grade.

Senator WALSH. He had somebody else put ahead of him.

Admiral BRYAN. His grade could not be changed. It is according to the way he stood when transferred. That could not have been changed by a lower or higher mark. His grade could not be changed or his position in his grade could not have been changed.

Senator WALSH. Lieutenant Sheppard failed in five subjects.

Admiral BRYAN. Yes, sir.

Senator WALSH. And there are some young men here who passed in every subject and are only ensigns, the same as he is, although he failed in five subjects?

Admiral BRYAN. That is true. There are a lot of ensigns, too, that failed in a good many subjects. In fact, I think we finally made all ensigns qualified that had a satisfactory average multiple. We did that because these are young officers who would not be given very responsible positions until they had had time to acquire the knowledge that they were lacking.

Senator WALSH. I call your attention now to the card of Arthur F. Blaslar. You re-marked him in ordnance and gunnery?

Admiral BRYAN. Yes, sir. That was done from the fact that many of these people had got near the proficiency mark, that is, we believed within the range of tolerance, considering the personal equation of people marking the paper. Some people got 2.34, some 2.4, and even 2.49, which we considered as a satisfactory mark, that they had shown proficiency enough so as to convince the board that they had knowledge of the subject.

Senator WALSH. Lieutenant Haviland failed in five subjects, the same as Lieutenant Sheppard?

Admiral BRYAN. Yes.

Senator WALSH. He was not given an ensignship and Lieutenant Sheppard was.

Admiral BRYAN. He was very poor in his specialty; he got 1.75 in aeronautics.

Senator WALSH. Do you know the facts in Lieutenant Haviland's case to be that he took the course on Saturday, only half the questions in aeronautics; that on Monday he was sick and did not take the questions at all; that of the questions he answered in the examination given on Saturday he received 3.5 out of a possible 4? On the questions in the paper he was able to take, able to answer the questions put, he received 3.5 out of a possible 4, which is a very good mark, is it not?

Admiral BRYAN. Very good.

Senator WALSH. And you marked him zero—

Admiral BRYAN. I did not mark his paper. Let me see that card again.

Senator WALSH. He took only half of the examination and did not take the other half, therefore his 3.5 was split in two, and he was given 1.75 on the whole examination.

Admiral BRYAN. I do not see, Senator, how you could expect us to make allowance for that. It is unfortunate.

Senator WALSH. I am simply commenting on the situation.

Admiral BRYAN. I do not see how we could possibly make allowance for that, because while I do not doubt that the statement of Mr. Haviland was perfectly true, yet we could have a good many people that would make that an excuse, would say they were sick, or something, and expect us to pass them.

Senator WALSH. Nearly every one of these cards shows that the subject of aeronautics was changed.

Admiral BRYAN. I say, we thought it too long. I want to say here, Senator—

Senator WALSH. Do you not admit it was too long?

Admiral BRYAN. No, sir; that is what I was going to tell you about. After going over them, I think we made a mistake, that we should have insisted on their being satisfactory in it. I have here a short memorandum which I will submit, showing that there were 31 of these men that got 75 per cent or over in that subject, on the original examination, the original marking, one of them getting as high as 96.2 per cent. Here is a list of their names.

Therefore, it shows that the examination was perfectly possible and could be done. But our idea was it was too long for the average, and perhaps after all we were right. Anyhow, we gave them that consideration, and raised that mark.

I would like to submit that paper showing the number that got 75 per cent or over.

(The paper referred to is here printed in full, as follows:)

United States Naval Reserve Force, class 5, officers who made a grade of 3 and above in the subject of aeronautics on the examination of May 16, 1921, for permanent appointment.

Lieutenants, United States Naval Reserve Force, class 5, who passed the examinations:		Mark.
Brow, H. J.	-----	3.14
Carter, P. W.	-----	3.22
Compo, G. L.	-----	3.10
Conley, D. L.	-----	3.11
Crinkley, A.	-----	3.05
Darby, A. M.	-----	3.05
Dickey, F. C.	-----	3.14
Esterly, M. H.	-----	3.07
Houghton, A. R.	-----	3.01
Lyon, R. D.	-----	3.12
McConnell, R. P.	-----	3.07
Palmer, C. D.	-----	3.08
Pride, A. M.	-----	3.41
Roe, G. T.	-----	3.10
Rohrbach, William H.	-----	3.23
Stevens J. H.	-----	3.09
Total	-----	16
Lieutenant, United States Naval Reserve Force, class 5, who failed on examinations:		
Quinn, J. J.	-----	3.01
Total	-----	1
Total lieutenants, United States Naval Reserve Force, class 5, who made 3 and above in aeronautics		17
Lieutenants (junior grade), United States Naval Reserve Force, class 5, who passed examinations:		
Harrell, R. H.	-----	3.00
Total	-----	1
Lieutenants (junior grade), United States Naval Reserve Force, class 5, who failed on examinations		0
Ensigns, United States Naval Reserve Force, class 5, who passed examinations:		
Allen, D. C.	-----	3.87
Brown, L. W.	-----	3.58
Carle, Paul	-----	3.34
Coles, W. M.	-----	3.31
Erdman, C. E.	-----	3.29
Gurley, D. D.	-----	3.25
Garnett, W. T.	-----	3.23
Ottaway, F. H.	-----	3.16
Richards, T. G.	-----	3.53
Waller, R. E.	-----	3.24
Waterman, F. B.	-----	3.17
Total	-----	11

Ensign, United States Naval Reserve Force, class 5, who failed on examinations:

Kelly, S. F.-----	3.12	1
Total-----		

Total United States Naval Reserve Force, class 5, officers who made 3 and above on aeronautics-----	30
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Senator WALSH. It is a fact that the marks in aeronautics were raised regardless of whether a person failed or not; the fact that a man got 2.6 made no difference; he was raised as well as the man that got below 2.5.

Admiral BRYAN. Yes; we would have given it to him if it would have done him any good. We did not go over all the cards and change them unless the satisfactory marks would have kept him in the service.

Senator WALSH. In other subjects, such as electricity and ordnance, only certain ones had their marks changed and not all.

Admiral BRYAN. They all would if it would be of any benefit to them.

Senator WALSH. Certain ones were picked out like Lieutenant Sheppard.

Admiral BRYAN. His is the only case that I can find.

Senator WALSH. I showed you two other cases.

Admiral BRYAN. Where a mark as low as that was considered?

Senator WALSH. I showed you two other cases here from these 10 or 12 cards that I have here.

Admiral BRYAN. I would like to see them.

Senator WALSH. Owen, electricity, 2.1; raised to 2.5.

Admiral BRYAN. Yes; but that is 2.1, and we considered 2 a satisfactory mark. I say that Lieutenant Sheppard is the only one I know of who was passed, or was given a passing mark, with less than 2 in electricity. He got 1.29; and we considered that the general run, taking particularly those that had failed, their marks had been so low in electricity that he probably knew something about the subject.

Senator WALSH. Was that not due somewhat to the letter sent to your board from the special board at Great Lakes?

Admiral BRYAN. Yes, sir; it was.

Senator WALSH. Blaisiar, in ordnance and gunnery, was raised from 2.37 to 2.5.

Admiral BRYAN. That is what I told you. We considered it within the limit of tolerance. I want you to understand, Senator, that everything we did we did for the benefit of these officers. At the last we came down—

Senator WALSH. I have not any doubt but what you did that, but you may have done injustice to others.

Admiral BRYAN. We could not have done an injustice. We came down to where we considered all these people that were unsatisfactory in four subjects, and at the last we came down to the people that were unsatisfactory in half the subjects. And you will find by looking at that list I gave you with these men checked off—I can not see how any unprejudiced man can look at that list that I submitted to you, sir, and conclude that those people, by the records shown by their examination, deserve any further consideration. I would like you to go over the list and look at it. They were unsatisfactory in half the subjects. These people, as in Lieutenant Sheppard's case, were unsatisfactory in only four. None of those who were unsatisfactory in four subjects failed except the people that had something on their records.

Senator WALSH. Lieutenant Sheppard, after the war was over, what, if any, inducements were made to you to remain in the service?

Ensign SHEPPARD. At the close of the war I was encouraged by the commanding officer of the aviation mechanics school, Commander Luckey, who was in charge of Columbia University, to remain in the service in order that aviation mechanics schools might be established, with an idea of remaining in the service, knowing that I would be promoted to senior-grade lieutenant. It was one of the conditions that I would be recommended for promotion to senior-grade lieutenant, and given to understand that the examination for transfer to the Regular Navy would be based upon fitness reports and record of service rather than examinations. Inasmuch as I was an expert in gas engineering, he felt that I was urgently needed at the school, and for that reason that promise or encouragement was extended.

Senator WALSH. Did a proposition come to you offering you a position outside?

Ensign SHEPPARD. Yes, sir.

Senator WALSH. What was that proposition and what was the amount of money involved?

Ensign SHEPPARD. I was offered the position of superintendent of the Universal Motor Car Co., of Richmond.

Senator WALSH. At what salary?

Ensign SHEPPARD. Approximately \$6,000.

Senator WALSH. Did you consult with your commanding officer?

Ensign SHEPPARD. I did, sir.

Senator WALSH. In regard to that offer?

Ensign SHEPPARD. I did.

Senator WALSH. On the question of whether you ought to take it or not?

Ensign SHEPPARD. I did.

Senator WALSH. As a result of your conference with your naval friends, what did you do?

Ensign SHEPPARD. I remained in the service, believing that the Navy was so fair and square in its dealings with men who performed competent service that they would be properly taken care of and given commissions commensurate with the duties they were performing.

Captain WILLIAMS. May I ask a question? Will you give me your age?

Ensign SHEPPARD. I am 34 years of age.

Senator WALSH. I think I asked you what your salary was in your present grade.

Ensign SHEPPARD. \$1,700, base pay of ensign.

Senator WALSH. Are you able to live on that?

Ensign SHEPPARD. Absolutely not.

Admiral BRYAN. But you have to?

Ensign SHEPPARD. I am being pushed for debts all the time.

Senator WALSH. I have nothing more, unless there is something additional you wish to say, Lieutenant.

Ensign SHEPPARD. I would like to ask Captain Williams or Admiral Bryan if, in their opinion, the ability of an officer can be judged by examinations such as we have had?

Captain WILLIAMS. I would like to answer that.

Senator WALSH. He asks you that.

Captain WILLIAMS. I am afraid I must answer with another question. Will you tell me any human power that has designed any other method of doing it? I do not mean for a single officer, but for 1,600.

May I digress a little and say the question that occurs to you is a question which was uppermost, paramount, in the minds of all responsible naval officers at the time we are discussing? The statement you make is one which caused great anxiety. Is there any way on earth which you can suggest by which 1,200 men can be taken into the Navy except by examination? Leave out the quality of the examination. What other method is there on earth by which you can take in 1,200 out of 22,000?

Ensign SHEPPARD. On the recommendation of their commanding officers under whom the officers have served. They are the best judges of a man's proficiency and ability as an officer, officers who are competent to submit a report on examination on their honor. They are called upon especially to submit reports for examination.

Admiral BRYAN. Would you expect an officer to report on your fitness for a permanent grade in the line when you only did aviation duty, and that aviation duty of a certain and specific kind? How could he do that?

Ensign SHEPPARD. I have performed every class of duty, sir, that could be assigned to a line officer with the rank of lieutenant, ashore.

Admiral BRYAN. But not at sea. He could not report on that.

Ensign SHEPPARD. I am performing that duty.

Admiral BRYAN. You may be an exception. But how could he do it with 1,600 as to whom he had no knowledge whatever of what they could do at sea? How could he make that report, and what credit should be given?

Ensign SHEPPARD. I think it should be given the greatest consideration.

Admiral BRYAN. Reporting on a man's qualities when he had never seen him doing those things about which he was reporting?

Ensign SHEPPARD. I think it should be given consideration.

Captain WILLIAMS. I am thoroughly in accord with your basic idea, and the idea is by no means new. But here is not a single man; there are 1,200 men who have got to be introduced into the service. You surely can not maintain

that should be done on reports alone in the face of conditions as they were in 1919, 1920, and 1921. You must have some examination to supplement those reports. Did not you examine your students at the Aviation Mechanics' School in Chicago?

Ensign SHEPPARD. Absolutely.

Captain WILLIAMS. You did not take your personal knowledge of them alone. You can not take anybody's knowledge.

Ensign SHEPPARD. I certainly did. A man's work in school was given greater credit than all the questions he might answer.

Captain WILLIAMS. Greater credit, yes; but not sole credit.

Ensign SHEPPARD. The mere fact that questions and answers are published such as these [indicating] is a clear indication that questions mean nothing, that examination means nothing. I believe the statement has been made here that 80 per cent of the questions given in this examination were submitted in the first notice sent out to officers that they were to be examined.

Captain WILLIAMS. I did not get that.

Ensign SHEPPARD. A large number of questions, according to the statement of Admiral Bryan, were given on the notice to the effect that the examinations would be held, questions similar to those asked in the examination.

Admiral BRYAN. I assume you are intending to be correct, but you are not correct. I said 80 per cent of the questions were covered by the scope of the examination, not by the sample questions.

Ensign SHEPPARD. Then, suppose a man would bone up on those questions and pass—one of the worst officers, a man who is not qualified to be an officer—he could bone up and pass and get by.

Admiral BRYAN. Your logic fails there, because if one of your officers is no good, he would fail on the report you speak of, which would also be considered.

Ensign SHEPPARD. I know by actual experience. I have been associated with men in my new duties aboard ship that have the same rank I have. I know one officer especially, that the commanding officer will not intrust him with the slightest minor duty, and yet he passed the examination theoretically.

Admiral BRYAN. He must have had a satisfactory mark on his record. That may be your opinion about him.

Ensign SHEPPARD. If these fitness reports mean nothing, what incentive is there for an officer to work rather than to just slide by, pass the buck, and get away with anything he possibly can get away with, and show a passing mark on his fitness report?

Captain WILLIAMS. You know what an officer detailed for engineering duty only is, do you not?

Ensign SHEPPARD. I certainly do.

Captain WILLIAMS. Do you not think in all this discussion that perhaps since you did not pass in aviation, you should consider yourself more in the line of engineering only, instead of aviation? Your specialty is gas engineering. You are not a specialist in aviation, and you did not take the examination.

Ensign SHEPPARD. It would be very foolish to place me in charge of the aviation mechanics school for the training—

Captain WILLIAMS. Of mechanics.

Ensign SHEPPARD. Not only mechanics, but quartermasters and carpenters. Seventy per cent of the men now engaged in air-craft work in the Navy have passed through my hands at Great Lakes.

The CHAIRMAN. Do you believe there should be taken into the line a line officer on the recommendation of the commanding officer alone? Does that commanding officer know the qualifications of that person in anything except the specialty which he has been following? For instance, these aviators, who have been flying only—we have had a number of them before us—they have had no other duty under their commanding officer except to fly. Is that commanding officer able to judge of the qualifications of that man so far as sea duty is concerned, and other duties connected with the duties of a line officer, which he must know?

Ensign SHEPPARD. He should be, sir, because he was called upon on his honor to recommend men for transfer to the line.

The CHAIRMAN. Under that construction very few of these men who have been only in aviation could be admitted into the line.

Ensign SHEPPARD. They are line officers; they are performing line duties.

The CHAIRMAN. From the testimony of many of the boys here, they have been flying all the time, and that is the reason they have had no chance to study for these other duties.

Ensign SHEPPARD. You will find a great many of them have been performing additional duty in the line.

The CHAIRMAN. And many of them have not, that are complaining of not having passed.

Ensign SHEPPARD. Then, your honor, why should they call upon commanding officers to submit these special reports of the examination of an officer's ability to be transferred to the line as a line officer? Why should they be called upon to do that with special reference to their honor?

Senator WALSH. In other words, you think the same method that was applied in framing a man's fitness report should be applied in accepting him into the service?

Ensign SHEPPARD. Yes; if a man is confirmed in his report.

The CHAIRMAN. I thoroughly agree with you that no educational test is a good all-round test for the efficiency of people either in civil service offices, in civilian life, or as an officer; but it is very difficult to get any substitute for it that will answer better.

Ensign SHEPPARD. In connection with the questions given by the examining board, I have here a series of questions and answers which have been given, I believe, at the academy for years, that were given to me by a line officer of the Navy in order that I might prepare for this examination. If I had had no duties to perform, no responsibilities, and had been able to take this book and hone these questions and answers, the chances are I would have passed the examination as a senior grade lieutenant.

Every officer who came up for examination in the Regular Navy, those that I have met and been associated with, prior to going up for that examination, have obtained all the questions that have been given before, and they bone on those; they get set answers such as are listed in this gouge.

The CHAIRMAN. The statement has been made here that these classes were held, and that after 3 o'clock in the afternoon permission was given for students to take that course. Were you given that permission, relieved of your duties, after 3 o'clock?

Ensign SHEPPARD. No, sir; I was not.

The CHAIRMAN. You were not?

Ensign SHEPPARD. No, sir.

The CHAIRMAN. At no time?

Ensign SHEPPARD. During three months of the time allotted to study I was ordered to Washington, Philadelphia, and Hampton Roads to procure equipment and establish a machinist's mate school. I performed that duty in such an excellent manner that the commandant of the Philadelphia yard felt called upon to give me a letter of commendation. I moved all the equipment from Eagle boat 25, sunk in the Delaware River—an estimate of \$25,000 having been made as the cost of moving it—with 20 men in six days, and established a record such as the Philadelphia Navy Yard has never had before. I have that in a letter of commendation from the commandant of the Philadelphia yard.

There are line duties apart from aviation, engineering duties.

The CHAIRMAN. As I understand it, you did not fly?

Ensign SHEPPARD. I have made application to fly time and time again.

The CHAIRMAN. I know, but you were not permitted to fly, so that you did not take the examination in aeronautics for that reason. Many of these other boys did nothing but fly. That is the point that I am trying to make. Your own case is proof of a certain condition. You did not take the examination in aeronautics because you had never been permitted to fly and did not feel competent to take it?

Ensign SHEPPARD. That is the idea. But I do not believe my record of service was given sufficient weight in the examination.

The CHAIRMAN. As I understand, your record of service was given a mark of 3.7.

Admiral BRYAN. The record of his service is what saved him from failing altogether.

The CHAIRMAN. They could not give you more than that.

Senator WALSH. That is all.

TESTIMONY OF LIEUT. MARION BUTLER, UNITED STATES NAVY.

(The witness was sworn.)

Senator WALSH. What is your full name?

Lieutenant BUTLER, Marion Butler; lieutenant, junior grade.

Senator WALSH. Where is your home?

Lieutenant BUTLER. North Carolina.

Senator WALSH. I believe you are the son of an ex-United States Senator?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. How old are you?

Lieutenant BUTLER. Twenty-six years old last month.

Senator WALSH. Where are you stationed now?

Lieutenant BUTLER. Anacostia.

Senator WALSH. How long have you been in the service?

Lieutenant BUTLER. I enlisted in November, 1917; I think November 7, and was sworn in, I believe, November 15.

Senator WALSH. That was after the war broke out?

Lieutenant BUTLER. Yes.

Senator WALSH. How old were you then?

Lieutenant BUTLER. That would make me 21.

Senator WALSH. Were you at school?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. Where?

Lieutenant BUTLER. George Washington University.

Senator WALSH. In what class were you there?

Lieutenant BUTLER. I had been at school three years, I think.

Senator WALSH. Since that time, in a very general way, what have been your duties in the Navy?

Lieutenant BUTLER. I was in training at Boston Tech., at Pensacola, flying duty, and in France for further training.

Senator WALSH. You were in France?

Lieutenant BUTLER. Yes, sir; for further training, and finally stationed at Fromentine, France.

Senator WALSH. For how long?

Lieutenant BUTLER. For patrol duty.

Senator WALSH. Submarine patrol?

Lieutenant BUTLER. Submarine patrol.

Senator WALSH. How long were you in France?

Lieutenant BUTLER. The exact time I do not know; I think it was about something over three months.

Senator WALSH. How much have you flown altogether? How many hours have you been in the air?

Lieutenant BUTLER. Something over 500 hours.

Senator WALSH. Since you came back from France, what have you been doing?

Lieutenant BUTLER. I was stationed at Hampton Roads; ordered to Moorehead City, N. C.

Senator WALSH. What kind of planes have you flown and become familiar with?

Lieutenant BUTLER. Practically everything the Navy has flown, I think; probably one or two exceptions.

Senator WALSH. Have you specialized in a particular line of work?

Lieutenant BUTLER. Photography; yes, sir.

Senator WALSH. Has it been the practice of the Navy to pick out certain men to specialize along certain lines in aviation?

Lieutenant BUTLER. That has usually been left to the judgment of the commanding officer. Special assignments are practically always made by him.

Senator WALSH. To what extent have you become an expert in photography?

Lieutenant BUTLER. I took up photography as a specialist study at Anacostia, and since that time have been in charge of the school.

Senator WALSH. That is, the young men who go through the aeronautic school you train in photography?

Lieutenant BUTLER. Then they are sent to various naval air stations under the Navy Department for duties in the line of work in which they have had instruction at Anacostia.

Senator WALSH. Then they all go to Anacostia for that instruction?

Lieutenant BUTLER. The school is at Anacostia.

Senator WALSH. How long has that been maintained?

Lieutenant BUTLER. It was in force when I reported for duty, and it is at present going on.

Senator WALSH. You are the instructor?

Lieutenant BUTLER. I am in charge of it; we have two instructors.

Senator WALSH. Have there been many men to specialize in photographic work?

Lieutenant BUTLER. Several men have been furnished from the operating air station.

Senator WALSH. Have you been delegated to special work in that line preparing material for a manual, or other information for the department in that specialty?

Lieutenant BUTLER. Only in the form of routine recommendations.

Senator WALSH. You have made recommendations from time to time?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. Were you at Anacostia during October and September, 1920, until the time these examinations were held in May, 1921?

Lieutenant BUTLER. I was.

Senator WALSH. Did you take this examination?

Lieutenant BUTLER. I did; yes, sir.

Senator WALSH. Did you pass?

Lieutenant BUTLER. No, sir.

Senator WALSH. What was your rank at the time of the examination?

Lieutenant BUTLER. Junior grade lieutenant.

Senator WALSH. You still have that rank?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. Was any school established at Anacostia that you or other reserve officers in class 5 could attend, between September and October, 1920, and May, 1921?

Lieutenant BUTLER. There was no school established under the direction of the Navy Department. Any efforts that were made individually by the officers themselves were done in their spare time.

Senator WALSH. Was there any course of lectures or instruction mapped out or given to the men?

Lieutenant BUTLER. None.

Senator WALSH. None whatever?

Lieutenant BUTLER. With the exception of after lunch we would all stay in the mess hall for an hour, not more—a month and a half I think was the total time—and the officers who considered themselves a little more proficient in a particular branch would try to help their fellow officers, like giving short lectures on work in which they felt they were qualified.

Captain WILLIAMS. You will state positively there was no school of any sort established there by order of the Navy Department between October, 1920, and May 16, 1921?

Lieutenant BUTLER. There were no instructors furnished. You must remember that is not a school. We just got together. For instance, I had studied law to some extent, and I got up—

The CHAIRMAN. Who was the officer in charge of that station at that time?

Lieutenant BUTLER. Lieutenant Bush. He was a temporary, and at that time was going to take the examination himself.

Senator WALSH. He failed, did he not?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. The man in charge of the station failed in the examination. Will you describe this informal getting together of the officers that you speak of? Was it under the direction of anybody?

Lieutenant BUTLER. At the time that notices came out the examination would be given the commandant of the station, Lieutenant Bush, as I understood, wrote several letters to the Navy Department making an effort to get instructors down there to give us instruction in work that would be covered by the examination.

Senator WALSH. Were any such instructors furnished?

Lieutenant BUTLER. Lieutenant Commander Bird came down, I think, on four various occasions and had these informal lectures—gave us a short talk on general principles in navigation, but there was no time set for these lectures. Usually he would call up a half hour before giving the lecture and say that he was coming down and possibly would take a flight and at the same time would give us a talk on navigation. I think the total talks given on navigation did not cover over four hours. We were not in the form of a school class, and there was no routine established for giving them. At these informal gatherings we had I think Lieutenant Bush gave us steam engineering from such experience as he has had.

The CHAIRMAN. Is he in the service?

Lieutenant BUTLER. He is a chief machinist, and he flunked on his examination in the work on which he was giving us instruction.

I have not seen my paper, but I know I did not pass. I knew when I took the examination I had not had opportunity to prepare and did not know whether my previous education would or would not help me, but I took a chance on it.

Senator WALSH. You, in these informal discussions, because you had studied law, tried to interpret to the other men the textbooks on international law?

Lieutenant BUTLER. I did. There was one other officer who tried to help us. He was a temporary ensign at the time. He gave us seamanship lectures. I think, at those little informal gatherings.

Captain WILLIAMS. What was his rank?

Lieutenant BUTLER. Boatswain. He flunked in his examination.

Captain WILLIAMS. Did he take the examination?

Lieutenant BUTLER. Yes.

Captain WILLIAMS. Did he pass?

Lieutenant BUTLER. He did not. All the officers who tried to help the other officers failed in their examinations. There is one exception.

Senator WALSH. I want you to be accurate about this. Did any regular officer of any grade give any talk at any time to the boys at Anacostia except Lieutenant Commander Bird, if you can recall?

Lieutenant BUTLER. None that I recall.

Captain WILLIAMS. There was no regular officer?

Lieutenant BUTLER. No, sir; there was no regular naval officer at the time stationed at Anacostia.

Senator WALSH. You spoke about the commanding officer trying to get from the Navy Department some instructors. Have you talked with him since I asked you to come up here as a witness, two or three days ago?

Lieutenant BUTLER. I did.

Senator WALSH. To get your recollection refreshed?

Lieutenant BUTLER. I did.

Senator WALSH. What information does he give you?

Lieutenant BUTLER. It was Lieutenant Bush, temporary; he is now chief machinist.

The CHAIRMAN. You knew of these instructions that had been sent out authorizing these schools, did you not?

Lieutenant BUTLER. We did; yes, sir.

The CHAIRMAN. Did you make any report to the Navy Department—

Senator WALSH. I was just asking him the same question, in another way. What efforts did Lieutenant Bush, to your knowledge, make to obtain assistance from the Navy Department?

Lieutenant BUTLER. He said he wrote several letters to the Navy Department.

Senator WALSH. Asking for what?

Lieutenant BUTLER. I think he wrote them to Captain Craven, who was then in charge of aviation, although on that point I am not certain.

The CHAIRMAN. I am going to ask that those letters and replies be put in the record.

Captain WILLIAMS. We will produce those letters and replies.

Lieutenant BUTLER. There were classes being held at the Navy Department every day for the men on duty at the Navy Department, covering these examinations. One officer, the only officer who passed the examination, who at that time was attached to Anacostia, attended these schools or classes regularly. He was a specialist in radio.

Captain WILLIAMS. Temporary or reserve?

Lieutenant BUTLER. He was a reserve. For that reason he was very closely associated with the department, and was invited to these lectures, as I understand, by Lieutenant Commander Hinkley.

Senator WALSH. I have a memorandum that Lieutenant Bush did telephone several times trying to get the Navy Department to send some instructors to Anacostia. Did Lieutenant Bush make any attempt by telephone communication with the department to get any assistance in instructing the men?

Lieutenant BUTLER. Of that I am not sure. I am sure he made efforts—that he made efforts on a number of occasions, but the method he used I do not know.

Senator WALSH. I want to be certain about this, and therefore I want to verify your statement that not a single competent, experienced, trained regular

Navy officer ever went to Anacostia during this period of time to give you instruction except the four lectures that Commander Bird gave.

Lieutenant BUTLER. There were none to my recollection.

Senator WALSH. How many reserve officers were there at Anacostia at that time?

Lieut. BUTLER. Six in all, reserve and temporary together.

Captain WILLIAMS. And no regulars.

Lieutenant BUTLER. No regulars; no, sir.

Senator WALSH. How many took the examination, or how many of them failed? Perhaps that is easier to tell.

Lieutenant BUTLER. There is an exception to the statement I just made. That is Commander Taylor. He is a reserve, as I understand it. He did not take the examination, and as he is a specialist in his line of work he does not intend to take the examination, and he is doing very important work out there for the Navy Department. There was a little ensign, Ensign Shaughnessey, who did not take the examination, and is out of the service at the present time.

Senator WALSH. So there was more than six?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. There were others in addition to the six that did not take the examination?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. Was the reason because they had no instruction?

Lieutenant BUTLER. That I do not know.

Senator WALSH. What did you men do personally to inform yourselves? Did you buy any books?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. What did a set of books that was necessary to cover these subjects cost?

Lieutenant BUTLER. Of that I am not sure.

Senator WALSH. Some one said it was \$34.

Lieutenant BUTLER. Lieutenant Marbury was sent to Annapolis by Lieutenant Bush.

Senator WALSH. Is he a reserve; one of the fellows that was going to take the examination?

Lieutenant BUTLER. He was.

Senator WALSH. Why did he go to Annapolis?

Lieutenant BUTLER. To get books and any information he thought would help us in the examination.

Senator WALSH. With what result?

Lieutenant BUTLER. He got the books.

Senator WALSH. And brought them back to you men?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. So that you had books assigned to each of you to read and study?

Lieutenant BUTLER. We had them as references; yes, sir.

Senator WALSH. Were you relieved from your duties at any time?

Lieutenant BUTLER. Never, with the exception that Lieutenant Palmer got 10 days' leave. He was lieutenant in the Reserve Corps and made ensign at the examination. He attended these lectures at the Navy Department regularly, and finally, just before the examination took place, he took 10 days' leave to prepare himself further for the examination.

Senator WALSH. What studying did you yourself do?

Lieutenant BUTLER. I was away on several trips.

Senator WALSH. What trips were you away on?

Lieutenant BUTLER. On photographic duty.

Senator WALSH. Were you sent to North Carolina at one time during this period?

Lieutenant BUTLER. Not during this period; no, sir. It was in connection with making a map of Annapolis, on one trip.

Senator WALSH. The city of Annapolis?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. From an airplane you made observations, took photographs, and then drew a map of the city?

Lieutenant BUTLER. Yes, sir. I was working in connection with the *Tennessee*.

The CHAIRMAN. We will have to stop here until to-morrow.

(Thereupon, at 12.10 o'clock p. m., the subcommittee adjourned until to-morrow, Saturday, April 22, 1922, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

SATURDAY, APRIL 22, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The committee met pursuant to adjournment at 10 o'clock a. m. in the room of the committee, Capitol Building, Senator L. Heisler Ball (chairman) presiding.

Present: Senators Keyes and Gerry.

Present also: Senator Walsh, of Massachusetts.

The CHAIRMAN. The committee will be in order.

Senator WALSH. Mr. Schuyler, will you find out for me who were the aviation officers that examined the aviation papers, and whether there were any qualified lighter-than-air men among them?

Mr. SCHUYLER. Lighter-than-air?

Senator WALSH. Yes. I understand five of the questions were general and the other five optional between lighter-than-air and heavier-than-air. So far as we have been able to be informed, by hearsay, the examiners were all heavier-than-air men. I would like to get that information if I can.

Mr. SCHUYLER. Yes, sir.

TESTIMONY OF LIEUT. MARION BUTLER, UNITED STATES NAVY.— Resumed.

Senator WALSH. Lieutenant Butler, you were telling us yesterday about the situation at Anacostia. Is there anything further you want to add to your testimony as to the efforts made to establish a school there, and what was done about establishing a school?

Lieutenant BUTLER. At the time these letters were received by the air station—

The CHAIRMAN. Of what letters are you speaking?

Lieutenant BUTLER. The letters stating that we should prepare for the examination and giving a type form.

The CHAIRMAN. Those letters stated that schools were to be started at all these stations. Where you had no line officer at your station, did you immediately notify the department to that effect?

Lieutenant BUTLER. I understand the commanding officer did; yes, sir.

The CHAIRMAN. He would be the proper one, of course.

Lieutenant BUTLER. Yes, sir.

The CHAIRMAN. That correspondence is to be obtained and placed in the record.

Mr. SCHUYLER. Yes, sir.

Captain WILLIAMS. We have made a preliminary search of the records, and I think the recorder can give the result. Did he find a letter?

Mr. SCHUYLER. We did not find any letter. The letter was apparently addressed to the director of aviation. I think we can get a copy of it.

Senator WALSH. What else is there, Mr. Butler, that you want to say?

Lieutenant BUTLER. Only that when we understood the scope of the examination at the time, from this typed letter, the individual officers made efforts to attend the classes. The privilege had been given to one of them on the station, Lieutenant Palmer, and we made efforts several times through the commanding officer to get up there, but we were told on each occasion that there was

not room for us up at the department, the class being conducted at the department.

Captain WILLIAMS. You were told that by Lieutenant Bush?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. There was a class being conducted at the department?

Lieutenant BUTLER. Yes, sir.

Senator WALSH. You made application to attend it?

Lieutenant BUTLER. Yes, sir. One officer on the station was given that privilege.

Senator WALSH. What officer was that?

Lieutenant BUTLER. Lieutenant Palmer.

Senator WALSH. And he passed the examination?

Lieutenant BUTLER. He passed as an ensign.

Senator WALSH. How did he happen to get the privilege, do you know?

Lieutenant BUTLER. His special line of work kept him very closely associated with the department.

Senator WALSH. He did not have so much field work, but more departmental work?

Lieutenant BUTLER. It was experimental work for the department, that kept him very closely in touch.

Senator KEYES. What did you understand was meant by the reply that there was not room for you?

Lieutenant BUTLER. I understood that the lectures were probably being given for people who were attached to the department, and as we were not part of the department complement that we would not be considered up there. Mr. Palmer's status was somewhat different from ours, because he was up at the department a large part of the time in connection with the experimental work he was carrying on in the radio laboratory at Anacostia.

Senator KEYES. I do not know myself just what that expression means, when you say there was not room for you.

Captain WILLIAMS. Did you make official application to attend the course at the department, or what application did you make? You say you were told there was no room for you. I would like to understand that. Who told you?

Lieutenant BUTLER. Only through the commanding officer on the station.

Captain WILLIAMS. He told you personally that there was no room for you?

Lieutenant BUTLER. Yes, sir.

Senator KEYES. Who was the commanding officer? Perhaps that is already in the record.

Lieutenant BUTLER. It is; yes, sir. It was Lieutenant Bush.

Senator WALSH. I have no more questions, unless there is something I have omitted to ask you that you want to testify about.

Lieutenant BUTLER. I think not, sir.

Senator WALSH. Then that is all.

TESTIMONY OF LIEUT. JAMES SPAULDING FARNHAM, UNITED STATES NAVY—Resumed.

(The witness had been previously sworn.)

Senator WALSH. Lieutenant Farnham, you testified the other day?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Following up your testimony, I want to ask you something about the record of George E. Rommel. Is he one of the young men who failed?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. The reason I want to have his record is to show the type of the men who are being lost to the Navy as the result of this examination. Will you describe to us briefly who Rommel is, what his work has been in the Navy, and what his qualifications are?

Lieutenant FARNHAM. Except for the time that I have been with the fleet air squadrons, I know little about his record, except the fact he received a citation for carrying out more or less dangerous aircraft patrol along the Belgium coast.

Senator WALSH. During the war?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Has he been in the service for some period of time.

Lieutenant FARNHAM. After the war he went on inactive duty and came back to active duty again about the time that the notice of the examination came out in the fall of 1920.

Senator WALSH. What work is he doing?

Lieutenant FARNHAM. He is commanding officer of one of the big flying boats with the fleet air squadron.

Senator WALSH. You have stated he failed in the examination.

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. He is a man that came back when this letter was made public, for the purpose of qualifying for permanent service?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. Was his return to the Navy prompted by his special interest in aviation?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. What do you say of his qualifications as an officer?

Lieutenant FARNHAM. In the words of the squadron commander, he was one of the pilots in the squadron that could be relied upon most under any circumstances.

Senator WALSH. You have spoken a good deal about your squadron. It would be described as what kind of a squadron?

Lieutenant FARNHAM. It is now known as a scouting squadron.

Senator WALSH. What, in your opinion, will become of that squadron July 1 next when the reserve officers who did not take the examination and the reserve officers who failed drop out of it?

Lieutenant FARNHAM. Unless some improvement is shown in the flying qualities of the regular officers who are acting as second pilots now for instruction in flight work, it is very difficult to say what will happen.

Senator WALSH. Do you know of any men in the Navy training to take up the work where you left it off?

Lieutenant FARNHAM. Only some men on the Pacific coast, and about their qualifications I know nothing; and some reserve officers who have had experience in big-boat flying and who have had three or four or five hundred hours in the big boats.

Senator WALSH. I have heard you or some of the young men here speak especially of some officer, some young man, who, perhaps more than anybody else in your observation, had studied these examinations.

Lieutenant FARNHAM. That was Lieutenant Rommel.

Senator WALSH. This same man?

Lieutenant FARNHAM. Yes.

Senator WALSH. That is what I thought. What do you say to the committee about what you observed in regard to Lieutenant Rommel's industry and attempts to pass this examination?

Lieutenant FARNHAM. From my observation, which, of course, was only casual, I thought that Lieutenant Rommel made every effort possible to prepare for these examinations. He studied as hard as the conditions under which the squadron was operating last winter permitted.

Senator WALSH. I got the impression, which was perhaps obtained by others, from the letter of Admiral Johnson about the school that was established with your squadron and from your own testimony, that there was a period of time when you were on the *Shawmut*.

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And had opportunity to study. Will you state to the committee how long during these six or seven months previous to examination you were with that squadron—how long you were under steam?

Lieutenant FARNHAM. Nominally I was attached to the *Shawmut* during the whole time.

Senator WALSH. You are speaking of the other reserve officers, all of you.

Lieutenant FARNHAM. Yes. The only time I was on the *Shawmut* when she was under way was for about 25 or 30 minutes when she went from her anchorage inside of the Colon breakwater to the oil docks of Cristobal.

Senator WALSH. So the experience you had previous to the examination of being at sea consisted of 25 minutes, other than when you were on the boat when it was at anchor?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. One other question I omitted to ask you, and owing to your modesty you omitted to tell me, about the serious accident you had in flying early in your service to the country. When was it, during the war?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. In what month?

Lieutenant FARNHAM. November, 1917.

Senator WALSH. How long after you had entered the service?

Lieutenant FARNHAM. That was about seven months.

Senator WALSH. What happened; what was the nature of the accident?

Lieutenant FARNHAM. I was flying in a R-6 type sea plane, which is a twin pontoon sea plane, tractor type. From what I was told afterwards, I went into a tail spin. In the fall of 1917 practically nothing was known about tail spins and recovery from tail spins. I had had 15 hours flying time alone.

Senator WALSH. Up to that time?

Lieutenant FARNHAM. Yes, sir. All I can remember is flying along straight and coming to in the hospital seven hours later.

Senator WALSH. What happened to you?

Lieutenant FARNHAM. I had five ribs broken, both lungs ruptured, a kidney hemorrhage, and from being under water for six minutes I developed a form of pleurisy, and I had numerous cuts and bruises.

Senator WALSH. After your hospital treatment did you go back to service?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. And have followed it up since?

Lieutenant FARNHAM. Yes, sir.

Senator WALSH. That is all.

Senator KEYES. How long since you have had a physical examination?

Lieutenant FARNHAM. I had a physical examination on the 20th of March, just before I reenrolled for another four years in the reserve force.

The CHAIRMAN. March of this year?

Lieutenant FARNHAM. Yes, sir; 1922.

Senator KEYES. I take it you passed successfully?

Lieutenant FARNHAM. Yes, sir.

TESTIMONY OF MR. CLARENCE E. EARL, UNITED STATES NAVY.

(The witness was sworn.)

Senator WALSH. What is your full name?

Mr. EARL. Clarence E. Earl.

Senator WALSH. What is your position?

Mr. EARL. Chemical engineer, Bureau of Aeronautics.

Senator WALSH. I have asked you to be a witness here because your name was mentioned yesterday, yourself and a man named Lonnquest, as being reserve officers at Akron in the summer of 1919. That is why you have been summoned here, so that we may ask you some questions. You are now a civilian employee?

Mr. EARL. Yes, sir.

Senator WALSH. What were you doing in the Navy in August of 1919?

Mr. EARL. I was the hydrogen officer at Akron, in charge of the hydrogen gas for balloons.

Senator WALSH. A reserve officer?

Mr. EARL. Yes, sir; a reserve officer.

Senator WALSH. How long were you at Akron?

Mr. EARL. I was at Akron about 20 months altogether.

Senator WALSH. Will you state the years and the months?

Mr. EARL. I went there in February of 1918. I stayed there until March of the same year, and went to Boston Tech. I came back to Akron in June of the same year, 1918, and qualified in lighter-than-air so far as free ballooning and kite ballooning was concerned.

Senator WALSH. What do you mean by qualifying? Did you actually fly?

Mr. EARL. I actually flew. I qualified as a free-balloon pilot.

Senator WALSH. When did you leave Akron finally?

Mr. EARL. I forget the exact date. It was the latter part of January, 1920, I think.

Senator WALSH. You are sure you were there from the summer of 1919 until January, 1920?

Mr. EARL. Yes; except one or two weeks when I was at Hampton Roads on temporary duty.

Senator WALSH. Who was the commanding officer there at that time?

Mr. EARL. I think Lieutenant Hoyt was the commanding officer there up until I think it was some time in July.

Senator WALSH. Will you state to this committee whether or not there was any school being maintained there for reserve officers to give them instruction in subjects other than lighter-than-air navigation?

Mr. EARL. Not to my knowledge.

Captain WILLIAMS. Not to your knowledge?

Mr. EARL. Yes, sir.

Senator WALSH. If there had been any school you would have known of it?

Mr. EARL. I certainly would have, because I was one of the reserve officers. We had very few officers there at that time, except a few men who came in to finish up their preliminary balloon training prior to taking their final training at the air stations on the coast.

Senator WALSH. What kind of a school was maintained there?

Mr. EARL. They had aeronautics, aerology.

Senator WALSH. Who were these instructors, and what was the instruction for? What class of people were getting this instruction?

Mr. EARL. The students and officers were getting the same class of instruction.

Senator WALSH. Who came there for what purpose?

Mr. EARL. Who came there for the purpose of getting their preliminary training in lighter-than-air work.

The CHAIRMAN. They had no instruction there on navigation?

Mr. EARL. No, sir.

Captain WILLIAMS. And none in tactics and strategy?

Mr. EARL. No, sir.

Senator WALSH. How long did any kind of school, lighter than air or any other kind of school, continue at Akron?

Mr. EARL. Right after the armistice they sent a bunch of student naval aviators in there and a few officers, and we trained them as fast as we possibly could get the gas out and give them their preliminary training.

Senator WALSH. That was after November 11, 1918.

Mr. EARL. January, February, and March.

Senator WALSH. Of 1919?

Mr. EARL. Of 1919; yes, sir.

The CHAIRMAN. Did not you say you did not leave there until January, 1920?

Senator WALSH. Yes. He is speaking of the year before. Step by step go on with what was done with the school.

Mr. EARL. I think we had practically all of the student naval aviators trained by March.

Captain WILLIAMS. March of that year?

Mr. EARL. March of 1919. Then we had some officers come in there for training for the international balloon races. They came in and did quite a bit of flying, a few officers, I do not remember the names of all of them.

Senator WALSH. That continued for how long?

Captain WILLIAMS. I would like to identify the time. Who was in command at that time? Did you know of H. W. Hoyt?

Mr. EARL. Yes, sir. Lieutenant Hoyt then was in command.

Senator WALSH. He said that before. When did that school close down and go out of business and stop receiving students?

Mr. EARL. I could not give you the exact date of that.

Senator WALSH. Approximately. Was it while you were there?

Mr. EARL. Oh, yes.

Senator WALSH. Some time between the summer of 1919 and January, 1920?

Mr. EARL. Yes, sir.

Senator WALSH. What happened? What do you know about it?

Mr. EARL. As soon as we got them trained we sent them out to the various stations, and then immediately started to put the station out of commission.

Senator WALSH. When did you do that?

Mr. EARL. I believe we began during September, October, and November, and we had practically completed all the shipments in November.

Senator WALSH. So that after this August letter came out, which has been produced in evidence, some time between September and November following, you began packing up equipment, destroying the station, shipping equipment away, and closing up Akron as an air station?

Mr. EARL. Yes, sir.

Captain WILLIAMS. When was that?

Mr. EARL. That was in 1919.

The CHAIRMAN. Why were you retained there until 1920?

Mr. EARL. After Commander Lansdowne left, Lieutenant Commander Downes was in charge, and I was second.

Captain WILLIAMS. Was Lieutenant Hoyt there all this time?

Mr. EARL. No. Lieutenant Babbitt came in and relieved Hoyt.

Captain WILLIAMS. When?

Mr. EARL. In 1919. Lieutenant Babbitt came in to relieve Lieutenant Hoyt, and immediately following him Commander Lansdowne came in and took charge, and Lieutenant Commander Lansdowne practically put the station out of commission.

Captain WILLIAMS. That was in 1919?

Mr. EARL. Yes, sir.

Captain WILLIAMS. What time?

Mr. EARL. It was around October and November.

Captain WILLIAMS. The station went permanently out of commission in 1919?

Mr. EARL. No.

Captain WILLIAMS. Practically?

Mr. EARL. Practically.

Captain WILLIAMS. Were any officers left there or not?

Mr. EARL. Surely. Lieutenant Downes and myself, the paymaster, and one pay clerk.

Senator WALSH. Were left there?

Mr. EARL. Yes, sir.

Senator WALSH. What was the reason it was put out of commission? As a matter of expense to the Government?

Mr. EARL. I could not say.

Senator WALSH. Previous to the Government taking over the station, who owned it?

Mr. EARL. The Goodyear Tire & Rubber Co.

Senator WALSH. The Government bought it from the Goodyear Tire & Rubber Co.?

Mr. EARL. Yes, sir.

Senator WALSH. Do you know when?

Mr. EARL. No; I do not know the exact date.

Senator WALSH. Did the Goodyear Co. buy it back?

Mr. EARL. Yes, sir.

Senator WALSH. When?

Mr. EARL. Officially, I think about March 15.

Senator WALSH. Of that year?

Mr. EARL. Of 1920.

Senator WALSH. After you had left there?

Mr. EARL. Yes, sir. But they came in there previous to my leaving there.

Senator WALSH. They came in and took occupation of it?

Mr. EARL. Yes, sir.

Senator WALSH. After the Government had destroyed it as a station?

Mr. EARL. Yes, sir.

Senator WALSH. So for a short period of time the Government owned it and carried on the activities of the station; before that time the Goodyear people had owned it, and it reverted back to the Goodyear people?

Mr. EARL. Yes, sir.

Senator WALSH. And when the men go there now they go under the auspices of the Goodyear people?

Mr. EARL. Yes, sir; if they go there. I do not know that any go there.

Senator WALSH. Captain Williams, is there any doubt about this? Why has the impression been given out that there were 20 months of schooling given there?

Captain WILLIAMS. I have never intended to give that impression. May I ask a question?

Senator WALSH. One or two more questions. Have you been interested in lighter-than-air craft all these years, all this time?

Mr. EARL. I have been connected with the Government—

Senator WALSH. In that capacity?

Mr. EARL. Not exactly in that capacity. I have had charge of aeronautical gases.

Senator WALSH. Are aeronautical gases solely and alone used in lighter-than-air craft?

Mr. EARL. Hydrogen is; helium is used for other purposes.

Senator WALSH. What opportunity have you had to know what the Government was doing with lighter-than-air craft, at Akron or elsewhere, in your capacity as chemist?

Mr. EARL. I think some time in September we stopped making gas, and afterwards there were no activities at all except "pay-hops."

Senator WALSH. What does that mean?

Mr. EARL. A man has to get a "pay-hop" in order to get his extra money.

Senator WALSH. You were a reserve officer; what was your commission?

Mr. EARL. Ensign.

Senator WALSH. You did not know then whether or not you were to be in the permanent Navy?

Mr. EARL. Yes, sir; I knew definitely that I would not.

Senator WALSH. You knew the other reserve officers who were there?

Mr. EARL. Yes, sir.

Senator WALSH. And you say on your oath, because you have taken an oath here, that there was no school maintained there during that summer or during the rest of that year for the training of reserve officers to qualify for line service ultimately?

Mr. EARL. No; there was not any school to my knowledge. If they held it, they held it without my knowledge, and I was there all that time.

Senator WALSH. I now offer, in connection with this testimony, a telegram sent yesterday by Lieut. F. L. Kirk, to the other man who was named as being the reserve officer there, Lieut. T. C. Lonnquest, together with the reply from Lieutenant Lonnquest to Lieutenant Kirk.

(The telegrams referred to read by Senator Walsh are here printed in full as follows:)

APRIL 21, 1922.

Lieut. T. C. LONNQUEST, *United States Navy,*

Naval Air Station, Pensacola, Fla.:

Kindly we re collect immediately as to what kind of a school was held in Akron August, 1919, and whether or not it was for the purpose of preparing reserve and temporary officers for the line examinations held May, 1921. How long did it last?

Lieut. L. F. KIRK, *Powhatan Hotel.*

PENSACOLA, FLA., April 21, 1922.

Lieut. L. F. KIRK,

Powhatan Hotel, Washington, D. C.:

School at Akron August, 1919, was for elementary instruction lighter than air only, free, and kite ballooning being taught. Best regards.

LONNQUEST.

Captain WILLIAMS. At the time you were there was the commanding officer Lieut. H. W. Hoyt or Lieutenant Commander Hoyt?

Mr. EARL. Lieutenant Hoyt.

Captain WILLIAMS. At any time that you were there was Lieut. H. W. Hoyt commanding officer?

Mr. EARL. Yes, sir; H. W. Hoyt, I think, relieved—I forget his name, a man from the west coast.

Captain WILLIAMS. Lieutenant Hoyt states that on August 12 a school was established at this station in navigation, tactics and strategy, naval regulation and instruction, meteorology and the theory of free ballooning.

Senator WALSH. Pardon me, Captain. I do not want to be technical, but I claim that the language does not go as far as you claim it does. I read it, "will be established."

Captain WILLIAMS. There is his statement. It is my understanding, in deference to Senator Walsh, that he was mistaken.

Senator WALSH. Who was mistaken?

Captain WILLIAMS. Lieutenant Hoyt.

Senator WALSH. I do not read the letter at all as you do. I do not read it as saying the school is established. I do read it as saying that one will be established.

Captain WILLIAMS. I would like to have his interpretation. May I have his interpretation of the letter?

Senator WALSH. Certainly.

Captain WILLIAMS. And his official knowledge. This is an official communication dated August 12, 1919, in which the reference is to "(a) Nav.-Air No. 82-171, dated July 21, 1919," and reads:

"1. In compliance with the above reference, a course of instruction has been laid down for the officers at this station in the following subjects:

"(a) Navigation.

"Tactics and strategy.

"Navy regulations and instruction.

"Meteorology and the theory of free ballooning."

This is in compliance with the letter that directed that schools be established. Do I understand it is your recollection that no such school was established; that there was another school, but no school was established? He says, "Has been laid down." It is your professional opinion that no such operation was carried out.

Mr. EARL. No, sir; nothing was executed in the way of classes in navigation, strategy and tactics, not to my knowledge.

Captain WILLIAMS. Did you take this examination?

Mr. EARL. No, sir.

Captain WILLIAMS. Were you interested in the approaching examination?

Mr. EARL. No, sir; in no way.

Captain WILLIAMS. Did you pay particular attention to what instruction was going on there?

Mr. EARL. No, sir; I did not know a thing about it.

Captain WILLIAMS. I do not think I have any more questions to ask the witness.

Senator WALSH. Is there any doubt that whatever was there—a school, institution, or station—that it was destroyed two or three months after this date? Is there any doubt about that?

Captain WILLIAMS. Perhaps so.

Senator WALSH. You see, Captain, it could be argued from your letter and the various documents that have been presented by the department that for 20 or 22 months there was a school established.

Captain WILLIAMS. I have stated most positively that I had no intention of conveying such an impression. I did not mean for one instant to contend—and I request that you take this as an official statement—that the department does not contend that for 22 months any school was established. There may have been, but it is far from the contention of the department that for 22 months any one of the reserve aviators was under instruction.

Senator WALSH. But you would be justified, and properly so, on producing that letter, to argue from it that at Akron a school was established, and so far as appears of record, it went on forever. You could argue that without hesitancy and with propriety. If I had not been able accidentally to get the testimony that the whole station was destroyed some months before the examination, whether there was a school there or not.

Captain WILLIAMS. Senator, the point upon which this letter hinges is your questioning the statement made by the Secretary of the Navy, in reply to a request for information from the committee, that schools had been established. I presume the fact that the station at Akron, Ohio, was discontinued, or the work discontinued, before the examination, was considered by him as immaterial, and it is so considered by me.

I state now, and I have stated before, that it is not the contention of the department, and never has been, that any one of these reserves was given 20 months' instructions, either voluntary or compulsory. There is no use arguing about it, because I grant it.

Senator WALSH. That is generous.

Captain WILLIAMS. I do not believe now, if I had it to do over again, that I would under any circumstances make the instruction compulsory.

Senator WALSH. Mr. Earl, has there been to your knowledge any Navy officer at all at Akron in command of anything since January, 1920?

Mr. EARL. Lieutenant Downes—

The CHAIRMAN. If he left there in January, 1920, I should think that was hardly a fair question.

Senator WALSH. He has been here in this department and in lighter-than-air work. Ordinarily I would not press it, but there were so few men in lighter than air that any time a lighter-than-air craft is being constructed—and practically all in America are constructed at Akron, are they not?

Mr. EARL. That I do not know.

Senator WALSH. He of necessity would know about the activities there.

Mr. EARL. I just know that Lieut. J. G. Downes and Ensign Blankfield, the paymaster, and one pay clerk, whose name I have forgotten, and myself were the last officers aboard there. The paymaster left with two carloads of material for Great Lakes. That included records and things of the station, and I left some time. I think it was in the latter part of January or the first part of February, I am not sure which.

The CHAIRMAN. Where did you go?

Mr. EARL. I was ordered to the Bureau of Engineering, and then I was ordered to Hampton Roads to relieve the hydrogen officer at Hampton Roads.

Senator KEYES. Were you the last person to leave there?

Mr. EARL. No, sir; Lieutenant Downes—

Captain WILLIAMS. When did he leave there?

Mr. EARL. I do not know; I think around March 15.

Captain WILLIAMS. When was it that the station was sold?

Mr. EARL. In March.

Captain WILLIAMS. When was it turned over to the Goodyear people?

Mr. EARL. Some time around December.

Captain WILLIAMS. December of what year?

Mr. EARL. 1919. That is when they came in. I do not know whether it was finally accepted by the Government. As to that I do not know.

Senator WALSH. Does not the aviation officer here know the station was abandoned at Akron?

Captain WILLIAMS. There is no question about the fact that it was abandoned.

Senator WALSH. When was it abandoned?

Lieutenant Commander ELLYSON. It was abandoned officially in the spring of 1920, not later than March.

Senator WALSH. Is there any doubt as to what this young man says about the tearing up of the station in the fall of 1919 and himself and a few others remaining there until January?

Lieutenant Commander ELLYSON. No, sir.

Senator WALSH. His statement is correct, so far as you know?

Lieutenant Commander ELLYSON. Yes, sir.

The CHAIRMAN. It seems to me, Senator, this is so insignificant that it is taking up a lot of unnecessary time.

Senator WALSH. I think perhaps that is true. But in a court of law a man could well argue, having produced a letter, having the official stamp and signed by a naval officer, that here is proof that for 22 months previous a school was established. You never presented any testimony as to when it was ended. You could have argued it went on until examination time. If it was not for evidence that we have presented would any of this committee know that as a matter of fact it was abandoned?

Captain WILLIAMS. I doubt very much if the idea of 22 months ever occurred to the committee; I know it did not occur to me. The original point at issue was the fact that you laid great stress on the fact that no instruction was given before October, 1920.

Senator WALSH. I do still.

Captain WILLIAMS. You repeated it.

Senator WALSH. And I do still.

Captain WILLIAMS. You asked me directly if any school was established before that, and in reply to your query I read you the official letter of a man who is now dead. I had no more intention of conveying to you the idea that a school was continued for 22 months than I had of conveying the intention to anybody in this room.

Senator WALSH. But had you inquired of the Bureau of Aeronautics they could have told you what this young man has told you.

The CHAIRMAN. We are absolutely agreed on what the letter means, the condition of the school, what it was, how long it continued; so why continue the discussion longer?

Senator WALSH. I am complaining about the trouble I have been put to to find it out.

Captain WILLIAMS. I do not contend that involuntary instruction was given to all these reserve officers at any time, and it is highly possible that no instruction was given to some of them directly. The opportunity was offered to the majority of them to take instruction.

Senator KEYES. It also is possible, is it not, that the Navy Department acted in perfect good faith, and the officer did, perhaps, in establishing a school, but for some unexpected reason the school might have been abandoned?

Senator WALSH. We interpret the letter to mean that he is going to do it.

Captain WILLIAMS. Some schools started before others. If these officers were admitted to the service and were to progress and be promoted, and this issue of responsibility for their instruction were to be brought up before every examination, would it be necessary for the department to prove they had been involuntarily instructed for their next advancement in rank?

Senator WALSH. I am not going to prolong the discussion; but your department commanded schools to be established, and you took no steps to see that they were established.

Captain WILLIAMS. We did not command them in 1919.

TESTIMONY OF LIEUT. PAUL EDMUND GILLESPIE, UNITED STATES NAVY.

(The witness was sworn.)

Senator WALSH. What is your full name?

Lieutenant GILLESPIE. Paul Edmund Gillespie.

Senator WALSH. What is your residence?

Lieutenant GILLESPIE. Port Deposit, Md.

Senator WALSH. And you age?

Lieutenant GILLESPIE. Twenty-six.

Senator WALSH. When did you enlist in the Navy?

Lieutenant GILLESPIE. March 29, 1917.

Senator WALSH. Just previous to the declaration of war?

Lieutenant GILLESPIE. Just a few days; yes, sir.

Senator WALSH. When you knew war was to be declared?

Lieutenant GILLESPIE. It was thought it would be.

Senator WALSH. What were you doing for a livelihood or for self-development?

Lieutenant GILLESPIE. I had been going to school and temporarily working in order to complete my next year's schooling.

Senator WALSH. You had worked a few months, then gone to school, and then would go back to work to provide means to continue your schooling?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. What school were you attending?

Lieutenant GILLESPIE. Tome.

Senator WALSH. A preparatory school?

Lieutenant GILLESPIE. Yes.

Senator WALSH. In what capacity did you enter the Navy, and tell us briefly and hurriedly about your earlier experiences in the Navy?

Lieutenant GILLESPIE. At this time war was inevitable. I knew I would be in it sooner or later, and I wanted to get into something that I thought would be interesting. I had an opportunity to enlist in what everyone thought was naval aviation. I enlisted in Baltimore as a landsman for quartermaster, and was almost immediately sent to Pensacola, Fla., where I started training in various shops they had. By the time I arrived at Pensacola war had been declared, and I believe the Navy made a great effort to train pilots and get them ready for war work.

About this time some arrangement had been made, I do not know just what, with the French to train some Americans, and a group of 50 men were selected and went across on the U. S. S. *Neptune*. I was in this group. We sailed for France in May, 1917.

Senator WALSH. You were in France in May, 1917?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. You must have been among the very first to go across.

Lieutenant GILLESPIE. We arrived a few days after the General Pershing outfit arrived.

Senator WALSH. That is before any of the Army arrived.

Lieutenant GILLESPIE. Just about the same time; within a week of each other.

Senator WALSH. At that time had you learned to fly?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. Proceed about your experiences.

Lieutenant GILLESPIE. We spent about two weeks, I should say, in various camps. We were at the naval receiving ship at Brest. From there we were sent to Tours, a French Army flying school, where we received preliminary instruction in flying, ground work, and motor instruction.

Senator WALSH. How many Americans were there in this camp?

Lieutenant GILLESPIE. Approximately 50. I do not know the exact number.

Senator WALSH. Proceed.

Lieutenant GILLESPIE. In about a month we completed the preliminary work, which was in land machines, and we then went or were sent to a little station near Bordeaux, Lake Ostend, where we took boat flying. After about a month and a half we were sent on to a school at St. Afet (?). That is a school for instruction in the perfection of bombing.

Senator WALSH. All this was under French officers?

Lieutenant GILLESPIE. French control entirely. We had officers with us.

Senator WALSH. But the instruction was given by the French?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Who had had war experience?

Lieutenant GILLESPIE. Yes, sir. October 11 I qualified and received the French brevet, which is similar to our naval aviators designation, and was then sent out to an American station at Mautchit, which at that time was being established. However, there were no buildings, just tents and no hangars. We had one or two machines. Within a week I was sent up near St. Nazaire, to the first American station, to go into commission at La Croisic. I at this time had been raised to second-class quartermaster. I went to La Croisic and helped in building the station, erecting the machines and testing them. I do not know the exact date the station was taken over, but we took it over in the fall of 1917, the late fall, and started operations conveying ships through the zone. We had a zone of approximately 100 miles.

Captain WILLIAMS. Was that at Brest?

Lieutenant GILLESPIE. No, sir; below Brest, outside of St. Nazaire. We started convoy and patrol work, and carried that on all through the winter. In March, 1918, we were given opportunity to take examinations for commission in the reserve corps. I took the examination, and in June of the same year, 1918, I was commissioned ensign, United States Naval Reserve Force.

Senator WALSH. What kind of an examination was that?

Lieutenant GILLESPIE. It was an examination in flying and motors.

Captain WILLIAMS. Written or oral?

Lieutenant GILLESPIE. Entirely written. It covered a period of several days. I do not know exactly how many. But it dealt chiefly with aviation, work in aviation, and, of course, we had naval work too. We had, for instance, naval regulations, naval instructions, military law.

Captain WILLIAMS. Any navigation?

Lieutenant GILLESPIE. No navigation; no, sir.

Senator WALSH. You qualified for ensign. What were your duties after that?

Lieutenant GILLESPIE. I carried on exactly the same duties. Before I was commissioned I was in charge of a flight. There were only three officer pilots on the station at that time, aside from the commanding officer and three enlisted pilots. I had charge of a flight. There was another pilot in it, and we carried on a patrol, the same as the officers would, of course. After I was commissioned I carried on the same duties practically.

Captain WILLIAMS. Were you in command at St. Nazaire?

Lieutenant GILLESPIE. No, sir.

Captain WILLIAMS. Of the flight?

Lieutenant GILLESPIE. Of one flight.

Captain WILLIAMS. You were senior flight officer?

Lieutenant GILLESPIE. Of one flight, three machines.

Senator WALSH. After that did you have various flights?

Lieutenant GILLESPIE. From that time I had various duties. I, of course, was a watch and division officer. I at one time was chief pilot; at another time I had charge of erecting, testing, and seeing the planes were delivered to other stations near there. We were receiving the machines. They, of course, were all French machines. We were receiving them and ferrying them to other stations near-by. I had charge of that work for a short time.

I made attempts to be transferred either to northern bombing or to Italy, where they were doing advance work. I had made various attempts to get transferred to where I felt I could do something. I had not done anything except make these submarine patrols and convoy work, and I wanted to get into something more advanced if I could. However, it failed; and I was sent to Treguier in Cotes du Nord. That is a station that was going in commission. Submarines had appeared to become very active in the English Channel, and this station was started in order to try to combat them. My chief

duties there were in trying to dry up the mud and get the station so that we could walk around. It was a terrible place, and the weather was bad. We had no operations there at all.

Captain WILLIAMS. You were in charge there?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. From there where did you go?

Lieutenant GILLESPIE. After the armistice was signed I received orders almost immediately to return to the United States. I made an attempt to stay over, but I had been in France almost two years at that time, and the commanding officer gave the officers who had only been over a short time an opportunity to stay if they wished. I was sent back.

Senator WALSH. Were you at La Croisic?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. I have a memorandum here about your flying time there. What was your record for flying time in Europe?

Lieutenant GILLESPIE. I did a great deal of flying.

Senator WALSH. Your record in flying indicates you had more flying time abroad than most of the other men.

Lieutenant GILLESPIE. I think probably it does; I do not know. There were official bulletins sent out; I believe they were made up in Paris, and there was quite a good deal of competition between the various stations in France and Italy. I do not know whether England was included, but during several months in succession I had the highest flying time—I mean more hours of actual patrol work than anyone else.

Senator WALSH. Do you know how many hours you were in the air while in France?

Lieutenant GILLESPIE. I should say around in the neighborhood of 500.

Senator WALSH. Was that an exceptionally high mark?

Lieutenant GILLESPIE. For that length of time; yes, sir.

Senator WALSH. For the naval men especially.

Lieutenant GILLESPIE. Yes.

Senator WALSH. When you came back to America where were you assigned to duty?

Lieutenant GILLESPIE. I reported to Bay Shore.

Senator WALSH. You were still an ensign when you came back?

Lieutenant GILLESPIE. Yes, sir; I reported to Bay Shore, and within a week was sent first to Hampton Roads, where I did various work. There was not a great deal going on. Of course, there were mail trips to and from Washington. The station at Hampton Roads was carrying official mail from the fleet and from the boats at Hampton Roads to Washington. I made several of those trips. In March, I believe, I was transferred to Anacostia.

Captain WILLIAMS. What year is that?

Lieutenant GILLESPIE. 1919. I stayed at Anacostia until May, 1919, and was then transferred to Langley Field to take up again land machines and prepare myself for work with the fleet—what developed into the ship plane division.

Of course, at that time they were commencing to fly off the turrets and experimenting more or less with land machines with the battleships for spotting work.

Senator WALSH. Did the department use special care in selecting the men for this work? Did they appear to require exceptional experience, I mean?

Lieutenant GILLESPIE. I am not in a position to say.

Senator WALSH. It was a new venture, anyway, flying from turrets?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. I notice that Commander Haviland was selected, too?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. And yourself, among others?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. When did you take up that work?

Lieutenant GILLESPIE. The last of May, 1919, I reported to Langley Field and remained there until August, 1919, when the detachment broke up and the officers were sent to either the Atlantic or the Pacific Fleet. I might state that the Pacific Fleet at this time was just going around—they were all assembled in Hampton Roads preparatory to sailing around to the west coast.

Senator WALSH. By relays?

Lieutenant GILLESPIE. I believe the battleships were going out at that time, and one or two officers were attached to each ship and went out.

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Senator WALSH. They flew to the west coast, did they not?

Lieutenant GILLESPIE. No, sir; they went out on the battleships. I did not get a place on any of the ships—I do not know why. However, I went to Hampton Roads in connection with setting up and testing planes for use on the battleships. We received, I should say, 15 machines there and started work on them, and after 1 or 2 had been set up and tested we found there were so many little things wrong and so much work had to be done on them we had to send them to Philadelphia where they could be fixed up by the aircraft factory, and, of course, that work was discontinued. So I went to the experimental squadron at Hampton Roads and worked with them all through the winter.

In February, 1920, I was sent to the Army pursuit school at Arcadia, Fla.; that is, Carlstrom Field. In the spring of 1920 I returned to Hampton Roads and remained there a week, and in July was sent to Mitchel Field, Long Island, attached to the Atlantic Fleet Ship Plane Division. I stayed there that summer and fall.

Senator WALSH. Whenever any promotions come let us know.

Lieutenant GILLESPIE. In October, 1919, I was promoted to lieutenant, junior grade.

Senator WALSH. Upon what recommendation, if any?

Lieutenant GILLESPIE. From the commanding officer, I would suppose.

Senator WALSH. And your previous record, I suppose.

Lieutenant GILLESPIE. Possibly. I went to Mitchel Field—

Senator WALSH. This is what year—1920?

Lieutenant GILLESPIE. 1920. We at this time were doing work which consisted chiefly of radio and spotting work and precision landings, preparatory to going aboard the U. S. S. *Langley*. Our radio work consisted of ground and air work. We had classes, of course, in radio instruction on the ground, and then we would go in the air and work either with the station on the ground or between the planes to perfect ourselves in the use of radio and radio equipment.

In the early part of January, 1921, I was ordered to the U. S. S. *Pennsylvania* just before she sailed to Cuba. Upon arrival at Guantanamo Bay I was sent to the beach, where the ship plane division remained during the cruise of the fleet south and during target practice. We there carried on, of course, our radio work, and during this period we carried on gunnery exercises, too. I do not know whether they were semiannual or annual. I came north on the *Oklahoma* and was immediately detached and sent to Hampton Roads. By the way, I was still attached to the ship plane division. I had just been on the ship for transportation.

Senator WALSH. When did you go to the ship plane division?

Lieutenant GILLESPIE. In June or July, of 1919.

Senator WALSH. You are still with that division?

Lieutenant GILLESPIE. No, sir; I was detached last fall.

Senator WALSH. You are now where?

Lieutenant GILLESPIE. At Anacostia. Upon our return to Hampton Roads we were relieved of all duty and allowed to prepare for the examination. This was a week before, that we were relieved of all duty and allowed to use our own time and discretion in preparing for the examination.

Senator WALSH. You came to Hampton Roads simply to take the examination practically?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. You came north a week before?

Lieutenant GILLESPIE. No, sir; I came north with the fleet, and I had been there probably a month, and then we were relieved for a week.

Senator WALSH. You were at sea with the fleet, as I understand, in September and October of 1920.

Lieutenant GILLESPIE. January.

Senator WALSH. Where were you during the three months previous to January, 1921?

Lieutenant GILLESPIE. At Mitchel Field.

Senator WALSH. Where is Mitchel Field?

Lieutenant GILLESPIE. On Long Island.

Captain WILLIAMS. It is an Army station.

Lieutenant GILLESPIE. It is an Army field; yes, sir.

Senator WALSH. What were you doing there?

Lieutenant GILLESPIE. I was attached to the ship plane division. Of course, we were carrying on our radio work and we were doing various work. We had

a great deal of cross-country flying. We made various trips to pick out landing fields and make an attempt to chart them.

Senator WALSH. At this time was a civilian honor bestowed upon you and Commander Haviland, or a naval honor, by being invited to compete in some flying tournament?

Lieutenant GILLESPIE. No, sir; that was a year later at Hampton Roads.

Senator WALSH. Tell us about it.

Lieutenant GILLESPIE. I think you mean the Pulitzer race. I flew in the Pulitzer trophy race Thanksgiving Day, 1919, on Long Island.

Senator WALSH. What was that, please?

Lieutenant GILLESPIE. The Pulitzer trophy race is for a trophy given by Mr. Pulitzer. I do not know his initials. He is the big newspaper man.

Senator WALSH. Of the New York World.

Lieutenant GILLESPIE. It is for the sole purpose, I believe, of advancing aviation and encouraging work in aviation.

Senator WALSH. How did you happen to be selected or chosen, or did you simply volunteer to enter the race?

Lieutenant GILLESPIE. I received orders from the bureau.

Senator WALSH. That is, the Bureau of Navigation selected you to represent the Navy in that race?

Lieutenant GILLESPIE. As one pilot; yes, sir.

Senator WALSH. Who was the other?

Lieutenant GILLESPIE. I do not know exactly; there were five or six that flew that fall.

Senator WALSH. Were they reserve or regular officers; do you remember?

Lieutenant GILLESPIE. They were all reserves.

Senator WALSH. You were selected by the Navy to represent the Navy in this contest?

Lieutenant GILLESPIE. Yes, sir; I received those orders from the bureau.

Senator WALSH. How did you come out?

Lieutenant GILLESPIE. Well, my motor quit on me.

Senator WALSH. You did not get the cup, anyway; the Navy did not get the cup?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. Did you get a promotion, even after that failure?

Lieutenant GILLESPIE. Just before I went south in 1921 I was promoted to a senior lieutenant.

Senator WALSH. That was after the examination?

Lieutenant GILLESPIE. No, sir; before the examination. Well, it was 20 days.

Senator WALSH. December, 1920, then?

Lieutenant GILLESPIE. The examination was in May, 1921.

Senator WALSH. You were at Mitchel Field those three months of the fall and early winter of 1920 before the examination?

Lieutenant GILLESPIE. I was.

Senator WALSH. Was there any school established at Mitchel Field?

Lieutenant GILLESPIE. No, sir; we had no regular officers attached to the division at this time, with the exception of two who were with us, I should say, two or three weeks. They were almost immediately detached, however.

Senator WALSH. So there was nobody left there but reserves?

Lieutenant GILLESPIE. That is all, and the commanding officer, who was a regular.

Senator WALSH. If you got any instruction you had to instruct yourself?

Lieutenant GILLESPIE. Yes, sir.

Captain WILLIAMS. It was a ship plane division.

Lieutenant GILLESPIE. Yes, sir.

Captain WILLIAMS. Who was your regular commanding officer, Captain Johnson?

Lieutenant GILLESPIE. No, sir; Lieut. Commander V. C. Griffin.

Captain WILLIAMS. Were you not at the same time attached to the *Sharcnut*?

Lieutenant GILLESPIE. No, sir; we were attached to the Atlantic Fleet air force.

Captain WILLIAMS. Exactly. Who was your commanding officer there?

Lieutenant GILLESPIE. Captain Johnson.

Captain WILLIAMS. You were temporarily on detached duty—that is to say, when you were at Mitchel Field you were not present on the ship?

Lieutenant GILLESPIE. At no time; no, sir.

Captain WILLIAMS. Did you ever serve under Captain Johnson?

Lieutenant GILLESPIE. No, sir; not directly.

Senator WALSH. You never had any ship duty?

Lieutenant GILLESPIE. I went to and from Cuba on a battleship. That was about a week and a half each time. I should say three weeks altogether.

Senator WALSH. Were you assigned to duties during that time, or simply a guest?

Lieutenant GILLESPIE. I was assigned to duties on the return; yes, sir. I stood watch in the engine room and fireroom.

Senator WALSH. What steps, if any, did the reserve officers at Mitchel Field take to prepare for this examination?

Lieutenant GILLESPIE. We bought books and tried to organize classes. Of course, we could not do much, because with one exception no one knew anything. There was one lad, Lieutenant Pride, who was very well up on a few subjects, I should say, and he was trying to perfect himself in others. Naturally, we could not expect him to take his time and instruct us. However, he did help a great deal. He used a great deal of his time in trying to teach us navigation and engineering, a few subjects like that. But he was working himself, and working very hard, I should say, to pass the examination himself. By the way, he did pass, and he made a very good mark, I understand.

Senator WALSH. It has not appeared in the record whether any books were furnished these men or not. I want to show that from all of them now. You had to purchase your own books?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. How much did you pay for the set of books; do you know?

Lieutenant GILLESPIE. I do not remember. I bought various books. But I really can't say.

Senator WALSH. Will all of those who are in the room show by a raising of their hands whether they purchased books at their own expense, and that the Government gave no books to you. Mr. Chairman, all present have raised their hands.

I think somebody said that the maximum amount for books was somewhere in the neighborhood of \$30.

Lieutenant GILLESPIE. I heard that said yesterday, but I do not know.

Senator KEYES. What did you pay?

Lieutenant GILLESPIE. I really do not know. I bought at least six books that I know of, and they ranged from \$2 to \$4. I really do not know what I paid. I imagine I paid around \$20 altogether for various books.

Senator KEYES. You bought them piecemeal, I suppose?

Lieutenant GILLESPIE. Yes, sir. When I needed them I got them.

Senator WALSH. Were you relieved from duty at any time at Mitchel Field?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. In January of 1921 I understand you went to sea; you left Mitchel Field and where did you go?

Lieutenant GILLESPIE. I went to Guantanamo Bay, Cuba.

Senator WALSH. How did you get there?

Lieutenant GILLESPIE. I was temporarily attached to the *Pennsylvania*.

Senator WALSH. What did you do at Guantanamo?

Lieutenant GILLESPIE. We did radio work and spotting photography.

Senator WALSH. That means you were in the air all the time, doing these things?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. It was not ground radio work?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. How long were you there?

Lieutenant GILLESPIE. Until the fleet came north in the spring.

Senator WALSH. Just before the examination?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Where did you stay nights? Where did you have headquarters while you were in Cuba?

Lieutenant GILLESPIE. We were quartered on the beach, Hicacle Beach; we were living on the beach. Of course, we had our mess there.

Senator WALSH. How many of you were there?

Lieutenant GILLESPIE. There were about 12 or 14 officers.

Senator WALSH. How many line officers and how many reserve officers?

Lieutenant GILLESPIE. We were all reserve with the exception of the commanding officer.

Senator WALSH. Who was that?

Lieutenant GILLESPIE. Lieut. Commander V. C. Griffin.

Senator WALSH. Was any school established there for you?

Lieutenant GILLESPIE. No school was established; no, sir. We had classes. We would get together among ourselves and make an attempt—it appeared to be a very poor one.

Senator WALSH. You had no instructors?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. You had no one to interpret these books or to lecture to you?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. Were you quarantined at this station; do you remember?

Lieutenant GILLESPIE. Yes, sir; we were not allowed to go ashore.

Senator WALSH. What do you mean by that?

Lieutenant GILLESPIE. It seemed in Cuba there was a great deal of smallpox at this time, and the entire naval station at Guantanamo was under quarantine. That is, I mean there was no liberty granted. They were not allowed to go to the villages—to go ashore at all. We had several miles of beach there, where we used to walk up and down and play ball, and things like that. But there was no shore liberty.

Senator WALSH. What did you do in the way of studying at this time?

Lieutenant GILLESPIE. We held classes nearly every night; not every night, but almost every night. We would get together on the mess table and work problems in navigation and try and study steam engineering and a few things like that. But it was very difficult. We had no lights. We were using lanterns and candles. In Cuba there are a great many bugs, and it was very unpleasant and very bad to study. It was not very satisfactory.

Senator WALSH. All this time for these three or four months you had no lights?

Lieutenant GILLESPIE. No; we had no electricity at all.

Senator WALSH. You would have to get a book up against a lantern or candle to study?

Lieutenant GILLESPIE. Yes, s'r.

Senator WALSH. Did you get any lectures at all while you were in Cuba?

Lieutenant GILLESPIE. None; no, sir.

Captain WILLIAMS. Did Lieutenant Commander Griffin assist in your instruction at all? He was the commander of that detachment, was he not?

Lieutenant GILLESPIE. Yes, s'r. Not during this time; no, sir.

Captain WILLIAMS. Not at all?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. When you left there and came to Hampton Roads, and just previous to the examination, how much time did you have to prepare for those examinations, if any?

Lieutenant GILLESPIE. We were relieved of duty a week before the examination commenced.

Senator WALSH. Was there any school there that you could attend?

Lieutenant GILLESPIE. No, sir. I believe the school had been discontinued at Hampton Roads at that time.

Lieutenant Commander ELLYSON. That school had not been discontinued at that time. The school kept up until the day of the examination.

Senator WALSH. Do you know about that?

Lieutenant GILLESPIE. I do not know about that. I am wrong, then.

Senator WALSH. You could not fit in?

Lieutenant GILLESPIE. No, sir; I was not attached to Hampton Roads air station.

Senator WALSH. Where were your headquarters?

Lieutenant GILLESPIE. I was attached to the ship plane division at Hampton Roads.

Senator WALSH. But in any event, assuming there had schools been running for three or four months, not having attended the earlier courses, could you have gotten anything out of it?

Lieutenant GILLESPIE. I really can not say. I probably could have gotten something; yes, sir.

Senator WALSH. So far as you know, there were no schools available to you?

Lieutenant GILLESPIE. I did not know of any.

Senator WALSH. If the officer says there were schools there, you do not dispute it?

Lieutenant GILLESPIE. Not at all; no sir.

Senator WALSH. You did not go, anyway?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. You had no opportunity to get instruction in schools that you availed yourself of?

Lieutenant GILLESPIE. I did not go to the schools. Every day during this week I went aboard the U. S. S. *Oklahoma*, which at that time was in the navy yard at Portsmouth, and received instruction of Commander Courts. He went to the trouble to get books and collected data, got questions of old examinations, and a great many officers from the ship-plane division went there, and he spent his entire days during this week helping us and doing everything he could. That was the one great light that we had.

Captain WILLIAMS. That is Portsmouth, Va.?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. That was voluntary service?

Lieutenant GILLESPIE. It was voluntary on his part.

Senator WALSH. Did you ask him to help you?

Lieutenant GILLESPIE. Yes, sir. Commander Haviland made arrangements.

Captain WILLIAMS. This was a week before the examination?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. I assume you are very grateful for the help he gave?

Lieutenant GILLESPIE. We certainly are.

Senator WALSH. Everything that you could wish in the way of help was given by this officer?

Lieutenant GILLESPIE. It certainly was.

Captain WILLIAMS. Did you make any effort to get any regular officer to instruct you before this week? When you were at Guantanamo Bay, did you make any effort to get any regular officer?

Lieutenant GILLESPIE. There were none.

Captain WILLIAMS. There in the bay?

Lieutenant GILLESPIE. The fleet was in the south.

Captain WILLIAMS. I mean on Hicacle Beach. Were you not with the fleet in Guantanamo Bay?

Lieutenant GILLESPIE. They were on various assignments. They were on the South American cruise, you know.

Captain WILLIAMS. I mean, while you were on the beach at Guantanamo the fleet was in the bay?

Lieutenant GILLESPIE. Yes, sir; part of the time.

Captain WILLIAMS. Did you make any effort to get a regular officer to instruct you then?

Lieutenant GILLESPIE. I did not; no, sir.

Senator WALSH. Did the officers come ashore to the beach from the boats?

Lieutenant GILLESPIE. They would come ashore during working hours, just to get flights.

Senator WALSH. How about during the evening hours?

Lieutenant GILLESPIE. No, sir; very seldom.

Senator WALSH. There were not very many attractions there, were there?

Lieutenant GILLESPIE. Very few.

Senator WALSH. What do you say about this examination?

Lieutenant GILLESPIE. I have not much to say about it. I was very much disappointed.

Captain WILLIAMS. You took the examination?

Lieutenant GILLESPIE. Yes, sir.

Captain WILLIAMS. Where?

Lieutenant GILLESPIE. At Hampton Roads. I felt that I was very well prepared, considering everything.

Captain WILLIAMS. You took it for a lieutenant at Hampton Roads?

Lieutenant GILLESPIE. Yes, sir. I thought I would pass; I really expected to.

Senator KEYES. What made you think so? You felt all the time that you had not had very much of an opportunity to prepare yourself. What made you think you would pass?

Lieutenant GILLESPIE. I had been working on the various subjects that had to be covered, and while I knew that I did not know the subjects thoroughly—it was impossible; you could not know them thoroughly in a few months, where men spent years learning them. You certainly can not expect anyone to know them thoroughly in a few months. I, however, tried and did learn something about every subject. I think I knew something about every question in the examination that was asked. Of course, I did not know the subjects

thoroughly; I did not pretend to. But I thought from what knowledge I had of them I could show I knew something.

Captain WILLIAMS. Have you inquired in what subjects you failed?

Lieutenant GILLESPIE. As soon as I found out I failed, I was not much interested.

Senator KEYES. Do you happen to know?

Lieutenant GILLESPIE. I do not, no, sir. Probably everything; I did not get anything.

Captain WILLIAMS. What education did you have before you came in the Navy?

Lieutenant GILLESPIE. Preparatory school; that is all.

Captain WILLIAMS. Preparatory for what?

Lieutenant GILLESPIE. College. By the way, I did not quite complete my course.

Captain WILLIAMS. You say you do not know in what you failed?

Lieutenant GILLESPIE. I do not.

Senator WALSH. What was your fitness report record?

Lieutenant GILLESPIE. Very good. I have every reason to believe so.

Senator WALSH. Do you know what your mark was?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. When was it you say you were promoted to lieutenant, senior grade?

Lieutenant GILLESPIE. February 27, 1919, just before we sailed south in 1919.

Senator WALSH. A year before this time?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Both your promotions have come after the war?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Did you know previous to the fall of 1920 that before you would be received into the Navy you would have to qualify as a line officer?

Lieutenant GILLESPIE. Everyone thought so; there were no instructions.

Captain WILLIAMS. Did you not get a syllabus? When did you get the syllabus of the examination containing the sample questions?

Lieutenant GILLESPIE. When we were at Mitchel Field; I should say the late summer or early fall of 1920.

Senator WALSH. I do not think you got my question. Previous to that time, did you assume you would have to pass the examination in the subjects that a line officer must be familiar with?

Lieutenant GILLESPIE. I did not expect to; no, sir. I did not know, of course. No one knew.

Senator WALSH. Would you have remained after the war in the naval service had you assumed that ultimately there would be a requirement on your part to have a knowledge of the subjects that students at the academy are required to familiarize themselves with?

Lieutenant GILLESPIE. No, sir; I do not believe I would.

Captain WILLIAMS. Did you want to go to sea?

Lieutenant GILLESPIE. No, sir. I still do not; no, sir.

Captain WILLIAMS. You do not want to go to sea under any circumstances?

Lieutenant GILLESPIE. I do not; no, sir.

Senator WALSH. Except in aviation duties?

Lieutenant GILLESPIE. Yes, sir; except in aviation duties.

Senator WALSH. You do not care to qualify for navigating a battleship?

Lieutenant GILLESPIE. No, sir; I am not interested in it.

Senator WALSH. But you have been to sea and will go again, and are willing and ready to go, if you can have aviation duties?

Lieutenant GILLESPIE. Yes, sir.

Captain WILLIAMS. You were in the seaplane division?

Lieutenant GILLESPIE. The ship-plane division.

Captain WILLIAMS. That ship-plane division was attached to the Atlantic Fleet during the time you were on it?

Lieutenant GILLESPIE. Yes, sir.

Captain WILLIAMS. For how many months?

Lieutenant GILLESPIE. Five months. We were attached to the fleet all this time. Of course, we were operating over them.

Captain WILLIAMS. Of that five months you were attached to the ship-plane division, how much time were you attached to a shore station, or on shore, like at Mitchel Field or Hicacle Beach? Am I right in assuming it was part of

the five months, or the time outside of that five months, you were at Mitchel Field?

Lieutenant GILLESPIE. It was outside of it.

Captain WILLIAMS. For five months you were actually on board ship?

Lieutenant GILLESPIE. No, sir. I was on board ship just on the trip to Cuba and return.

Captain WILLIAMS. This is called the airplane detachment of the Atlantic Fleet, is it not?

Lieutenant GILLESPIE. Atlantic Fleet ship plane.

Captain WILLIAMS. It was on the beach at Guantanamo?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Were you again nominated by superior naval officers to participate in the Pulitzer trophy race at a later date than 1920, to which you have referred?

Lieutenant GILLESPIE. I was told by my commanding officer that I had been entered with Commander Haviland to take part in the Pulitzer race of 1921.

Senator WALSH. But you did not take part?

Lieutenant GILLESPIE. No, sir. I believe the Navy thought it would cost too much money to send pilots and planes to the races. It might be interesting to know that the Navy plane won the race. It was flown by a civilian, I believe entered by a civilian.

Senator WALSH. A civilian pilot?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Did you participate in the bombing off the coast last spring?

Lieutenant GILLESPIE. Yes, sir. Upon the return of the fleet to Hampton Roads I was attached to the ship-plane division, which was operating at the Hampton Roads Air Station. It was loaned to the torpedo plane division for work in the bombing exercises. It was sent to Yorktown and started flying the bombers in preparation for the bombing exercises. I was there about two and one-half months.

Senator WALSH. Is there any branch of the aviation service of the Navy that you have not familiarized yourself with?

Lieutenant GILLESPIE. None that I know of; no, sir.

Senator WALSH. Are you familiar with lighter-than-air craft and heavier-than-air craft?

Lieutenant GILLESPIE. Heavier than air only. I should have stated that. I do not know anything about lighter than air.

Senator WALSH. But in all the activities that the Navy has undertaken in aviation you have participated and familiarized yourself with them?

Lieutenant GILLESPIE. In heavier-than-air work; yes, sir.

Senator WALSH. That means not only all land experiments, but all experiments undertaken at sea thus far in developing aviation?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Have you flown all the various types of aircraft, heavier-than-air machines?

Lieutenant GILLESPIE. All with the possible exception of one or two; yes, sir.

Senator WALSH. To what extent are you familiar with the mechanism of the different types?

Lieutenant GILLESPIE. Quite thoroughly with all of them.

Senator WALSH. Have you had to have a mechanical knowledge of the structure of aircraft?

Lieutenant GILLESPIE. Oh, yes; everyone has to know that.

Senator WALSH. How many hours of flying have you had in the air?

Lieutenant GILLESPIE. Approximately 1,000.

Senator WALSH. Is that about the maximum of any man who has been in the service?

Lieutenant GILLESPIE. I understand there are some who claim to have around 1,500 or 1,800 hours, and I believe they have.

Senator WALSH. If an average was taken of the number of hours of all the men, regulars and reserves, that they have flown, what would be the average?

Lieutenant GILLESPIE. I do not know. I am afraid it would be very low.

Senator WALSH. A very few hours?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. The number of men that have flown over 300 hours is what percentage of the total, you would say.

Lieutenant GILLESPIE. Less than half.

Senator WALSH. And from 300 to 500?

Lieutenant GILLESPIE. I really do not know the figures. I am not in a position to say. I really can not tell.

Senator WALSH. It would get smaller and smaller?

Lieutenant GILLESPIE. Very small, there is no doubt.

Senator WALSH. It would be less than 20 or 25 per cent?

Lieutenant GILLESPIE. I should say around 25 per cent.

Senator WALSH. Have you anything else to suggest that would be helpful to the committee in this matter?

Lieutenant GILLESPIE. No, sir.

Senator WALSH. Where are you stationed now?

Lieutenant GILLESPIE. At Anacost.a.

Senator WALSH. What are your duties there?

Lieutenant GILLESPIE. I am engineer officer.

Senator WALSH. What does that mean?

Lieutenant GILLESPIE. I have charge of the engineering equipment, of the motors, the overhauling and repairing of the motors and the motor equipment of the station.

Senator WALSH. So far as you know, has your record been without blemish or question?

Lieutenant GILLESPIE. I have reason to believe so; yes, sir.

Senator WALSH. I do not think of any other questions.

Senator KEYES. I would like to ask the witness a question. You have referred to the difficulties you had in studying during the evening on account of poor lights, etc., while you were down at Cuba on shore?

Lieutenant GILLESPIE. Yes, sir.

Senator KEYES. What about your duties during the day? Were they such as to have prevented you putting in some reasonable amount of time during the day?

Lieutenant GILLESPIE. Oh, yes, sir. We worked every day with the exception of Sunday.

Senator KEYES. You had no opportunity for study during the day?

Lieutenant GILLESPIE. No, sir.

Captain WILLIAMS. How many in your detachment were subjected to those same conditions and passed the examination?

Lieutenant GILLESPIE. Three, I believe.

Captain WILLIAMS. Three out of how many?

Lieutenant GILLESPIE. The entire number.

Captain WILLIAMS. I mean three out of those who tried.

Lieutenant GILLESPIE. I believe there were about 11 or 12 who took the examination.

Captain WILLIAMS. Three out of twelve passed?

Lieutenant GILLESPIE. Yes, sir.

Captain WILLIAMS. And they were subjected to the same conditions?

Lieutenant GILLESPIE. Yes, sir; oh, yes.

Senator WALSH. Were they reduced in rank, do you remember?

Lieutenant GILLESPIE. One was, I know, and I believe two; I am not sure.

Senator WALSH. Two of the three were demoted?

Lieutenant GILLESPIE. I am not certain. I know one was reduced.

Senator WALSH. I wanted to ask you about Lieutenant Laverentz; do you know him?

Lieutenant GILLESPIE. Yes, sir; very well.

Senator WALSH. Is he one of the reserve officers that failed?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. What do you know about his record and what do you say about the loss of his services to the Navy?

Lieutenant GILLESPIE. He has a very excellent record, I know, and is without a doubt—I do not think there is anyone that will even doubt his ability; I think he is without doubt one of the best, and they are very few, pilots in the Navy.

Senator WALSH. In what is he especially qualified?

Lieutenant GILLESPIE. He is qualified in everything.

Senator WALSH. Every branch of the service?

Lieutenant GILLESPIE. Absolutely.

Senator WALSH. Was he selected to participate in the bombing off Yorktown?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. What were the circumstances of his being selected, do you remember?

Lieutenant GILLESPIE. It seems as though the torpedo plane division had not enough officers. I do not know just why we were sent there. At any rate, we were sent to the torpedo plane division to fly the bombers in the bombing exercises.

Senator WALSH. That is, you and he were selected, although you did not belong to that detachment?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. You were selected from the other detachments?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Was it an indication to the rest of the Navy, but perhaps not to yourself, that it was because of the good opinion that your superior officers had of your ability to conduct yourselves creditably to the Government?

Lieutenant GILLESPIE. I would not say that, but I believe it was due to our former experience.

Senator WALSH. The extent of your experience made you valuable for that work?

Lieutenant GILLESPIE. I have that impression; yes, sir.

Senator WALSH. Do you know Lieutenant Darby?

Lieutenant GILLESPIE. I have met him; I do not know him well at all.

Senator WALSH. Do you know of officers in the Navy, former reserve officers, who have passed the examination and who have refused to receive the rank which they have been given?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. And are going to leave the service if they have not already left the service?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Are those men in your opinion the best men, many of them?

Lieutenant GILLESPIE. Some of them are, without a doubt; there is no doubt about some of them. As to all of them I could not say. I do not know them all.

Senator WALSH. Do you know Lieutenant Parker?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Is he a commanding officer now in the Navy?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. Where?

Lieutenant GILLESPIE. He is officer in charge.

Senator WALSH. Where?

Lieutenant GILLESPIE. At the aviation field at Dahlgren.

Senator WALSH. Where is that?

Lieutenant GILLESPIE. In Virginia.

Senator WALSH. Did he fail in this examination?

Lieutenant GILLESPIE. I believe so.

Senator WALSH. And he is now holding a position as commanding officer at the station?

Lieutenant GILLESPIE. I really do not know what his official position is. He is officer in charge of aviation.

Senator WALSH. What do you know about his experience and service in the Navy?

Lieutenant GILLESPIE. Lieutenant Parker went to France at the same time I did, and received part of his training at the same places that I did. However, he received a much more advanced course of instruction. He was sent to England after he completed his instruction in France, and took an advanced pursuit course at an English school in Scotland, which I understand was one of the best in the world at the time. After that he went to Dunkirk and carried on patrols. I really do not know just what he did.

Senator WALSH. Do you know the officer who was selected by the Navy to make the flight across the Atlantic, Lieutenant Hinton?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. What do you know of him? Did he fail in the examination?

Lieutenant GILLESPIE. I believe he failed; I am not positive.

Senator WALSH. There is no doubt about it. I think it is agreed he did. He is in inactive service now?

Lieutenant GILLESPIE. Yes, sir.

Senator WALSH. What do you know about his qualifications?

Lieutenant GILLESPIE. I do not think anyone has any doubt as to his ability as a flier. It is apparent.

Senator WALSH. Is it exceptional?

Lieutenant GILLESPIE. Very exceptional.

Senator WALSH. The very fact he was chosen to make this flight is a testimonial that his superior officers selected him out of the very large number of officers because of his superior fitness and capacity?

Lieutenant GILLESPIE. Yes, sir; undoubtedly.

Senator WALSH. I do not think of any more questions, unless there is something you want to bring out or state to the committee about the general effect which the situation is having upon the Air Service.

Lieutenant GILLESPIE. I have nothing.

Senator KEYES. Have you anything, Captain Williams?

Captain WILLIAMS. No, sir.

TESTIMONY OF LIEUT. WELLINGTON EWART STICKLEY, UNITED STATES NAVY.

(The witness was sworn.)

Senator WALSH. What is your full name?

Lieutenant STICKLEY. Wellington Ewart Stickley.

Senator WALSH. Where do you live?

Lieutenant STICKLEY. Woodstock, Va.

Senator WALSH. That was your home before you went into the naval service?

Lieutenant STICKLEY. It has been my home all the time; I was born and raised there.

Senator WALSH. When did you enter the naval service?

Lieutenant STICKLEY. April 25, 1917.

Senator WALSH. On the outbreak of the war?

Lieutenant STICKLEY. Absolutely; yes, sir.

Senator WALSH. Where were you at that time; what were you doing?

Lieutenant STICKLEY. I had just finished school.

Senator WALSH. What school?

Lieutenant STICKLEY. The University of Virginia, in March, and had just opened up a law office with my brother, but really had not gotten under way, having appeared in court only once besides the time I appeared to qualify.

Senator WALSH. So that you were a full-fledged lawyer?

Lieutenant STICKLEY. I am a full-fledged lawyer; yes, sir; in name.

Senator WALSH. Have you a degree?

Lieutenant STICKLEY. I got my degree from the University of Virginia; yes, sir.

Senator WALSH. And passed your bar examination?

Lieutenant STICKLEY. Yes, sir. Incidentally, I passed the bar examination before I got my degree, a year or so.

Senator WALSH. Very briefly and hurriedly will you tell us your experience in the Navy, in aviation particularly?

Lieutenant STICKLEY. I enrolled as a chief master at arms, in the reserve force, in class 4, on April 25, 1917, at Norfolk, Va. I was immediately detailed to duty under orders from the Department of Justice in the secret service branch of the service. I was on the York River at West Point for the first seven months. I was there as the only naval representative outside of four Marine guards. I was then detailed for duty at Camp Lee for two months, during which time the fleet was out of the York River and made its base, I think, at Port Jefferson, N. Y. When the fleet returned I was transferred back to West Point and remained there until March, 1918.

Captain WILLIAMS. West Point, Va.?

Lieutenant STICKLEY. West Point, Va.; yes, sir. In March, 1918, I was transferred to Norfolk and immediately upon arrival there made application for transfer to class 5, so that I might have the opportunity of getting a commission. On April 10 I was detached—before that I might state that in December we were released from the Department of Justice.

Senator WALSH. In 1917?

Lieutenant STICKLEY. Yes; in 1917, and took up our duties under Naval Intelligence and worked directly under naval orders and naval supervision. On April 10 I was transferred from class 4 to class 5 in my rating as chief master of arms, and was immediately ordered to Boston Tech.; arriving, started my ground school work on April 15, 1918. I left Boston approximately July 9 and went to Bay Shore, L. I., for elementary flight instruction. About September 5, 1918, was transferred to Pensacola for advanced training; qualified, and was

commissioned ensign on November 18, 1918. I was retained at Pensacola as an instructor in the bombing division and remained there until July 4, 1919, when I was transferred to Hampton Roads.

I might state at this time that along with Lieutenant Kirk and several others we were supposed to have gone out under an order issued from the Bureau of Navigation, that all men commissioned after the armistice was signed should go home on inactive duty. But we were recommended for retention inasmuch as we were attached to the permanent slate and there were not a sufficient number of old men there to take our places.

Captain WILLIAMS. At Pensacola?

Lieutenant STICKLEY. At Pensacola. So we remained on, instructing these men, student officers that were coming through, which we completed approximately I should say around June or July of 1919. They were the rest of the reserves. From July, 1919, until January, 1921, I was at Hampton Roads.

Senator WALSH. That is a year and a half.

Lieutenant STICKLEY. Yes, sir. In January they were short of instructors and Lieutenant Arthur and myself were detached from Hampton Roads and transferred back to Pensacola, Fla., as additional instructors. I remained at Pensacola until some time in June; I do not remember the exact date. It was shortly after the examinations were taken, when I was transferred again to Hampton Roads, where I have remained since.

Captain WILLIAMS. 1921?

Lieutenant STICKLEY. 1921; yes, sir.

Senator WALSH. From January to the time of the examination where were you?

Lieutenant STICKLEY. At Pensacola.

Senator WALSH. From examination time up to the present time where have you been?

Lieutenant STICKLEY. I was at Pensacola for a month after the examination, when I was detached and ordered to Hampton Roads, and have been there since.

Senator WALSH. What have you been doing at Hampton Roads lately, and what were you doing during that long period you were there?

Lieutenant STICKLEY. At Hampton Roads I was only a pilot in the operation squadron during my previous stay there, although I had incidental work as associate judge advocate in several prominent court-martial cases, and constantly acted as counsel for an accused in many other summary and general court cases, in several boards of investigation and courts of inquiry.

At the present time I am the ordnance officer at Hampton Roads, besides the additional duties as pilot in the operation squadron.

Senator WALSH. How many men have you instructed in preliminary flying?

Lieutenant STICKLEY. I could not state definitely. I was commissioned and designated naval aviator, my aviation designation number being 1688. When I left there I think the number was up around approximately 3,000. So I took a part in instructing these men during my stay at Pensacola, about 1,200.

When I was in the bombing squadron I might state that during that time we were flying anywhere from four to six hours a day.

Senator WALSH. How many hours of flying have you had?

Lieutenant STICKLEY. I have approximately 540 certified hours.

Senator WALSH. Were you promoted at different times from ensign?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. When did you get your promotion?

Lieutenant STICKLEY. I was promoted in March, 1920, to lieutenant, junior grade, and in March, 1921, just a short time before the examination, was promoted to lieutenant, senior grade.

Senator WALSH. You were first at Hampton Roads from October, 1920, to January, 1921, six months previous to this examination. What opportunity, if any, did you have there to attend lectures, and what steps, if any, were taken to prepare you for this examination?

Lieutenant STICKLEY. Approximately in October, as I understand it, this class was started, three times a week. I did not attend the class at that time. In the middle of September I was injured in the line of duty and was in the base hospital.

Senator WALSH. What was the nature of your injury? Do you mind telling us? It is not necessary.

Lieutenant STICKLEY. The nature of my injury was a compound fracture of my left index finger.

Senator WALSH. How long did you suffer from that?

Lieutenant STICKLEY. I was in the hospital approximately seven weeks, between six and seven weeks. As soon as I got out of the hospital I went home on 15 days' leave.

Senator WALSH. So you were not there until what period of time?

Lieutenant STICKLEY. I was not there until approximately the 1st of December.

Senator WALSH. So although these schools had been established and were in operation at that time—

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. You remained only a month before you were transferred to Pensacola?

Lieutenant STICKLEY. Yes, sir. I would like to state here that it is to the credit of Lieutenant Price, who had a room next to me, that he was very kind and considerate and during that time helped me quite a bit in the subject of engineering, giving me quite a bit of his time.

Senator WALSH. Did you purchase books at this time?

Lieutenant STICKLEY. I purchased all the books except military law, courts and boards, which is furnished by the Navy, and two volumes on electricity that I got from the library that I did not feel I was able to buy at that time. I expended for books on the other subjects approximately \$25.

Senator WALSH. During that month of December that you were at Hampton Roads, did you attend any of the lectures or schools?

Lieutenant STICKLEY. No, sir.

Senator WALSH. Why?

Lieutenant STICKLEY. During that month that I was at Hampton Roads?

Senator WALSH. Yes; if there were classes being held then?

Lieutenant STICKLEY. I had no particular reason for not attending classes, although I was not really relieved from any duty. If I had just walked off, I could probably have gone on and attended them at times. I would like to state this—it is stretching official duty pretty hard, although it is recognized—I was in charge of athletics—that is, in charge of the basket-ball team—at that time, and I was devoting most of my afternoons to basket ball during the winter months. Incidentally, I would like to state that during all this time, or for three summers and for two winters, I have devoted a good many practically all, of my afternoons except in the early part of the season, when we only went out about three or four days, to the development of athletic teams on these various stations.

Senator WALSH. Was that among the enlisted men and officers?

Lieutenant STICKLEY. Among the enlisted men, except in baseball, where they allowed more officers to play.

Senator WALSH. So you have devoted your time when not in the actual performance of aviation duties to athletic work among enlisted men?

Lieutenant STICKLEY. Yes, sir; quite a part of it.

Senator WALSH. I suppose you were commended for that by their officers and that it met with their approval and you were encouraged?

Lieutenant STICKLEY. Oh, yes, sir.

Senator WALSH. When you went to Pensacola, did you find any school down there?

Lieutenant STICKLEY. Yes, sir. From the very outset I attended a school at Pensacola.

Senator WALSH. How often were schools held there and what kind of schools were they?

Lieutenant STICKLEY. This is the daily routine at Pensacola, if I may depart for just a minute.

Senator WALSH. Yes. We are speaking about January, February, and March.

Lieutenant STICKLEY. Yes, sir. At 8.45 in the morning there is a muster of officers and men on the beach and in the various activities in the yard. As soon as muster and inspection is held flying immediately begins, and you continue duty until 12 o'clock noon. At 12 you are relieved of duty and given an hour for lunch. We hurried with our lunch so that we could get to classes at 12.30. The classes lasted daily from 12.30 to 1 o'clock—one-half hour daily, five days a week. That class for a while was repeated for half an hour in the afternoon, from 4.30 until 5. But the 4.30 to 5 class covered the

same matter and the same subjects were brought up as from 12.30 to 1 o'clock. So if you attended both classes you would not get any more out of it then if you just attended the one. That did not continue for long. I took advantage of it several times when I was not able to get away from the beach and go up to the class.

Senator WALSH. At 1 o'clock what were your duties?

Lieutenant STICKLEY. We went back to our duties on the beach and on the other activities in which we were engaged.

Senator WALSH. How long did you continue in those duties?

Lieutenant STICKLEY. Until 4.30.

Senator WALSH. What time did you have for private study?

Lieutenant STICKLEY. Any time after 4.30 that we wanted.

Senator WALSH. Until you went to bed?

Lieutenant STICKLEY. Yes, sir.

Captain WILLIAMS. Was there any night study arranged in that school?

Lieutenant STICKLEY. No, sir.

Senator WALSH. Were there any other lectures or instructions given at any time except voluntary classes held during your recreation hour from half past 12 to 1 o'clock, other than those lectures occasionally in the afternoon?

Lieutenant STICKLEY. For the benefit of all the men; no, sir; that was all.

Captain WILLIAMS. I have a statement here, made officially, under date of November 18, 1920, by Captain Cristy. (See copy of letter on page 170.)

Lieutenant STICKLEY. In reply to that, Captain Williams. I can only speak from the middle of January on. That letter, as I recall, is dated November 18. The two hours he speaks of, I imagine, must be the two hours that each man must devote to study on his own initiative.

In behalf of myself, I want to state—

Senator WALSH. Mr. Chairman, this man passed the examination.

Lieutenant STICKLEY. During the time I was at Pensacola I stayed in my room with my head buried in my books and worked like a dog to pass this examination. I have gone into Lieutenant Quarles, now over in the Bureau of Aeronautics, and he has given hours at a time on several different occasions to help me in subjects which were difficult for us to master, such as engineering and electricity.

Captain WILLIAMS. How old are you?

Lieutenant STICKLEY. I am 31.

Captain WILLIAMS. You took this examination?

Lieutenant STICKLEY. I took this examination.

Captain WILLIAMS. And you passed it?

Lieutenant STICKLEY. I passed it for ensign.

Captain WILLIAMS. You did not accept it?

Lieutenant STICKLEY. I did not accept it.

Captain WILLIAMS. Why?

Lieutenant STICKLEY. There are many reasons that entered into it. I have responsibilities at home. I have a widowed mother and an afflicted brother that are dependent on me, and a half sister that I am providing a home for. I have a brother that I am helping along at the University of Virginia, who probably will be able to help when he gets out. I have a brother who is supposed to graduate at Annapolis this spring and might be able to help after awhile. With the salary I was making as a lieutenant I was able to carry on and meet my responsibilities, but when they offered me an ensign, I decided at first I would take it, because I wanted to hold on longer until I could see these things clearly. But then when orders came through for all engineers that accepted commissions to go to sea, I immediately changed my mind.

Captain WILLIAMS. You did not want to go to sea?

Lieutenant STICKLEY. Do not misunderstand me. I will answer your question, if I may go on with my story.

Captain WILLIAMS. I am very much interested, Mr. Stickley.

Lieutenant STICKLEY. When these orders came through to go to sea, I figured that from the standpoint of finances not only would I have been cut in pay to the extent of two grades—from a lieutenant through lieutenant, junior grade, down to ensign—not only would I have been cut the salary of those two grades, but I would have lost my 50 per cent increase in flight pay. So I decided it was not worth it to me, for the simple reason that future development and future promotion in the Navy, with me 31 years old, as an ensign, would just mean for me to admit that I was a coward and had no ambition,

and I felt that to battle life on the outside was much better than to hide on the inside.

Understand me, in reply to your question, I have no horror about going to sea. Personally, I would like to go to sea, but I would like to go to sea in my rank and not as an ensign.

Senator WALSH. How much reduction in pay was it to you?

Lieutenant STICKLEY. Approximately \$200 a month.

Senator WALSH. Reduction?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. Would it have been absolutely impossible for you financially to pay for your own subsistence and support these obligations that you have on you?

Lieutenant STICKLEY. Yes, sir; absolutely. I could not do it. So there was but one decision for me to make, to take my chance on the outside, to go back to my profession if I could possibly make any headway in it, at least to take that chance, because the possibilities on the outside are not as limited as it would have been for me to have accepted an ensignship in the Navy.

Senator WALSH. Would you have stayed in after the armistice up to the present time if you had supposed you would have to qualify for the duties of a line officer?

Lieutenant STICKLEY. No, sir; I most assuredly would not. If my foresight had been as good as my hindsight, I would have gotten out the day the armistice was signed. I have given up practically five years of my life—it will be five years on the 25th April since I enrolled in the service—and in those 5 years I could either have proved or disproved whether I would be a success in civilian life.

Captain WILLIAMS. You stated if you had had good foresight, or if your foresight had equaled your hindsight, you would have gotten out the day of the armistice.

Lieutenant STICKLEY. If my foresight had been as good as my hindsight.

Captain WILLIAMS. When you saw reserves leaving the service by the hundreds, what intimation did you get that you were to be retained in your specialty in the Navy without an examination for line officer? What inducement or inducements were given you to remain, from the armistice on? Where did you get that idea?

Lieutenant STICKLEY. I do not know whether the other gentlemen will recall this or not, but shortly after the armistice was signed I remember distinctly signing a statement in reply to an inquiry, "Will you accept a commission in the Navy for aeronautic duty only?" I remember distinctly signing such a statement. Whether that was local to the station I was on or whether that was a general order, I could not state.

Captain WILLIAMS. You do not know where it came from?

Lieutenant STICKLEY. I signed the statement at Pensacola.

Captain WILLIAMS. Do you know who showed it to you?

Lieutenant STICKLEY. No, sir. Off and on we had signed statements that we would accept a commission in the Navy.

Captain WILLIAMS. Not from the Navy Department?

Lieutenant STICKLEY. I could not state that.

Captain WILLIAMS. Was any responsible person asking you if you would accept a commission for aviation duty only?

Lieutenant STICKLEY. Yes, sir. I have seen that statement.

Captain WILLIAMS. I wish you would produce one of them.

Lieutenant STICKLEY. I wish I could.

Captain WILLIAMS. I wish you would tell me on the outside who was starting that thing. The press was full of it.

Senator WALSH. Did you not infer from having gone in the Navy in aviation duties only, and having been promoted, that that is all you would be required to pass an examination in?

Lieutenant STICKLEY. I had that understanding, until later on. There is just as much reason for that as there was to think we were going to have to stand a line examination, until the legislation that brought this about was passed. Until then there was not any definite understanding. Inasmuch as a separate air service was a mooted question before Congress at the time, there was as much reason to believe there would be a separate air service as there was that we would have to stand an examination for the line as provided by the legislation of June, 1920.

Senator KEYES. I understand you would have remained in the Navy, having passed this examination, had you not been reduced in rank?

Lieutenant STICKLEY. Yes, sir; that is true.

Senator KEYES. With you it is simply a question of not having made your grade?

Lieutenant STICKLEY. With me it is a question of not having made my grade.

Senator WALSH. And the difficulty of the examination, which was responsible for not making his grade.

Senator KEYES. That has not been brought out.

Senator WALSH. I am coming to that. I want to get back a moment to the matter of the schools. You have described pretty much in detail a school you had there in January, a half hour at lunch time.

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. As the time the examination approached was the period for instruction extended?

Lieutenant STICKLEY. No, sir.

Senator WALSH. So all the time you were there it was only one-half hour a day, for five days, taken out of your lunch time?

Lieutenant STICKLEY. Yes, sir. And if you will excuse, may I add here, that the examination started on Monday, May 16. We were on active duty until Friday noon previous to the examination and we were relieved from duty on Friday afternoon and Saturday, and to my knowledge that is the only time that we were actually relieved from duty at Pensacola.

Senator WALSH. How many instructors did you have?

Lieutenant STICKLEY. We had one instructor.

Senator WALSH. This same man instructed you in aviation, in electricity, in engineering, in naval regulations, and all the other subjects?

Lieutenant STICKLEY. Yes, sir. Lieutenant Commander Cassard.

Senator WALSH. The school consisted of half an hour of voluntary assembly?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. Of reserve officers out of their lunch hour?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. To receive instruction from one man?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. Who instructed in all the subjects?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. All the time?

Lieutenant STICKLEY. Yes, sir.

Captain WILLIAMS. You do not say there might not have been further instruction at night.

Lieutenant STICKLEY. From January on, there was no instruction at night.

Captain WILLIAMS. There were no ordered study periods at night?

Lieutenant STICKLEY. No more than what you wanted to put aside for yourself, sir.

Captain WILLIAMS. No study periods were arranged at night?

Lieutenant STICKLEY. The first intimation I have had of that is that letter you read. What do you gather he meant by those two-hour instruction periods, may I ask you, sir?

Captain WILLIAMS. An opportunity to study.

Lieutenant STICKLEY. You had opportunity to study if you wanted to devote your whole time to it, from 4.30 in the afternoon until 8.45 the next morning.

Mr. SCHUYLER. You did not have any instruction after 4.30?

Lieutenant STICKLEY. Only that half hour I spoke about.

Captain WILLIAMS. Did you get any lesson sheets?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. Captain, does your information correspond with mine as to the situation at Pensacola? I think you got the impression that the instruction was much more elaborate and there was much more time given to it.

Capt. WILLIAMS. I am trying to get exactly his idea of what occurred. The difference of opinion between us is about the night work. I do not think there was any instruction at night except in the sense that is customary at Annapolis, to supply a man with a lesson sheet and the time to use it. Am I right?

Lieutenant STICKLEY. They supplied us with lesson sheets, but practically no designated time set aside in which to use those sheets.

Capt. WILLIAMS. I will not continue.

Senator WALSH. If the committee please, I want to call your attention, even to the extent of being boresome, to the report made by the officer at Pensacola, in view of this testimony about the school there, simply to show, without some

explanation or testimony, the conclusion it is possible to draw from it. [Reading:]

"From: Commandant naval air station, Pensacola, Fla.

"To: The Bureau of Navigation.

"Subject: Report of instruction and preparation of reserve and temporary officers.

Senator WALSH. That is signed by H. W. Cristy.

Lieutenant STICKLEY. He is commanding officer of the naval air station at Pensacola, Fla.

Senator WALSH. Who was the officer assigned to give these instructions?

Lieutenant STICKLEY. Lieut. Paul T. Cassard.

Senator WALSH. Who is he?

Lieutenant STICKLEY. He is a permanent line officer who was detailed there for that work. He is now senior squadron commander at Pensacola. He is one of the line officers that qualified in heavier-than-air training in aviation.

Senator WALSH. How old a man is he?

Lieutenant STICKLEY. I judge he is about 32 or 33.

Senator WALSH. A young man.

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. Had he any experience in lecturing or instructing before this?

Lieutenant STICKLEY. I could not tell you.

Captain WILLIAMS. What do you think of that course?

Lieutenant STICKLEY. Do you want my frank opinion?

Captain WILLIAMS. Yes; I want, frankly, what you think of it. Before you answer I want to tell you what the department thought of it.

Senator WALSH. Let him give his answer first.

Captain WILLIAMS. Very well.

Lieutenant STICKLEY. I think as a course, from the standpoint of a lecture, it was a complete failure.

Captain WILLIAMS. Of what?

Lieutenant STICKLEY. Of getting something from a lecture, it was a complete failure.

Senator WALSH. Amplify that.

Lieutenant STICKLEY. To this extent: That for a half-hour course to take up six subjects—

Senator WALSH. State what you got in a half hour; read it off. What constituted a half-hour course?

Captain WILLIAMS. You do not mean a half-hour course, but a half-hour lecture. This letter states there were two-hour periods of study at night with lesson sheets.

Lieutenant STICKLEY. Yes, sir.

Captain WILLIAMS. Do you believe that; is that true?

Lieutenant STICKLEY. There were lesson sheets given out. I do not understand the letter.

Captain WILLIAMS. Was that course followed as closely as reasonably could have been expected at a working station where other instruction was going on?

Lieutenant STICKLEY. The half-hour period was followed.

Captain WILLIAMS. Was the rest of it?

Lieutenant STICKLEY. I could not say about that. I say the lesson sheet was given out and the half-hour period was given out.

Captain WILLIAMS. You started to tell us your opinion of this course.

Senator WALSH. You have before you a sample session sheet. Refer to the pages you were supposed to read over at night.

Lieutenant STICKLEY (reading):

"R. & T. School. Engineering. Second week. Lesson I. (To be studied before Monday.)

"Marine and naval boilers, pages 98 (water-gauge glasses), 106 (zinc protectors), 108, and 109.

"Questions:

"1. Describe a water-gauge glass.

"2. For what purpose are zinc protectors used?

"3. What are boiler accessories—telling what comes under each?

"4. What is the difference between a low-pressure and a high-pressure feed water heater?

"5. What three types of feed water heaters are used in the Navy?

"6. Describe a straight-flow feed-water heater.

"Lesson II. (To be studied Monday night.)

"Marine and naval boilers, pages 126 (expansion joints), 133 (reducing valves), 140 (firing tools), 141 (firing accessories for liquid-fuel-burning boilers), 146 (oil burners), 195 (furnace losses).

"Questions:

"1. Describe an expansion joint and why used.

"2. What is the purpose of a reducing valve?

"3. What firing tools are used in coal-burning boilers?

"4. What are the firing accessories for liquid-fuel-burning boilers?

"5. What three types of oil burners are used, and describe the mechanical atomization?

"6. What are the furnace losses?"

Do you want to go on with this?

Senator KEYES. Do you want to comment on that?

Senator WALSH. Yes.

Senator KEYES. As being reasonable or unreasonable?

Lieutenant STICKLEY. In half an hour's study or half an hour's lecture you could not possibly begin to cover more than half of that.

Captain WILLIAMS. Were you supposed to study that in half an hour, or between Friday and Monday?

Lieutenant STICKLEY. The lesson to be studied between Friday and Monday it seems to me is reasonable, but when you get the same for Monday night, between Monday noon and Tuesday noon, I say it is unreasonable.

Senator GERRY. Did you have any time to ask questions in that half hour of instruction?

Lieutenant STICKLEY. That is what it was for, practically.

Senator GERRY. How many men were taking the course?

Lieutenant STICKLEY. Approximately around 55 or 60.

Senator KEYES. How many of those men passed?

Lieutenant STICKLEY. I could not tell you. I could go down the list.

Senator KEYES. You need not do that. We can find that out.

Lieutenant STICKLEY. I would like to draw this distinction as between the men that failed and the men that passed at Pensacola, if I may. I would like to take the list and go over it and give the detail of each man on the station that passed, and show you that the men that passed were men that were engaged in administrative work and had plenty of time during the day in which they could study, and had that advantage over the man that was on the beach and could not get away for an extra hour or two hours' work.

Senator KEYES. I think that is very clear to us. It would simply mean that the men who were not so fortunate would have to make an unusual effort. We know that some of the men were handicapped, and it means that those men must make an unusual effort.

Lieutenant STICKLEY. Yes, sir. It means the man up in the office, using his pen all day long, can sit down, with probably less knowledge than the man from the beach, and can probably express himself better, because he is in practice all the time. The men on the beach did not have that advantage, and there is a whole lot in that. There is a sort of psychology to it.

Senator WALSH. Let us do a little figuring. This school lasted 24 weeks, 5 days a week, half hour a day. What was the number of total hours of instruction given in all of these 10 subjects? Sixty hours, is it not?

Lieutenant STICKLEY. Sixty hours were given to cover eight subjects, and with aeronautics there were nine subjects.

Senator WALSH. Nine into sixty is six hours and three-quarters, about.

Lieutenant STICKLEY. Take engineering, and that was three subjects in itself, because you had boilers for one, you had reciprocating engines for another, and you had turbines for another—three distinct textbooks with it.

Senator WALSH. What do you say about the possibility of making an intelligent presentation by a body of students in any of these subjects, in six hours?

Lieutenant STICKLEY. I say it is impossible.

Senator WALSH. What do you say about the examinations themselves?

Lieutenant STICKLEY. I say for the opportunity afforded us, the examinations were absolutely unfair and a reasonable man with reasonable effort could not expect to pass them.

Senator WALSH. Do you think the fact you had a knowledge of law helped you somewhat in the examination over others?

Lieutenant STICKLEY. No, sir; I do not think it helped me. I can see the advantage to a man that had an engineering education, the advantage he would have over a man like myself that did not have it.

Captain WILLIAMS. Yet you did pass it as ensign?

Lieutenant STICKLEY. Yes, sir.

Senator WALSH. In what subjects did you fail?

Lieutenant STICKLEY. Ordnance and gunnery, electricity, and engineering.

Captain WILLIAMS. Yet you passed for an ensign?

Lieutenant STICKLEY. Yes, sir.

Captain WILLIAMS. Did you fail in anything else?

Lieutenant STICKLEY. No, sir.

Captain WILLIAMS. Did you fail physically?

Lieutenant STICKLEY. Yes, sir. I was three-quarters of an inch short. I had taken the physical examination in the reserve force, the annual examination, for four years. I came up for transfer in connection with the examination, and they failed me physically, told me I would be unable to take these professional examinations. But finally I was able to obtain a waiver on my physical defect and took the examination.

Senator WALSH. Lieutenant Stickle, from your knowledge of the personnel of the naval reserve officers, what do you say is going to be the result in aviation of the removal of this large number of officers from the service—that is, highly qualified officers?

Lieutenant STICKLEY. Until they develop men to take their places, I think that aviation is going to suffer just a lapse in its development; that is all. It is going to be crippled for a while.

Senator WALSH. Have you worked out for me some figures to show the financial losses to the Government from the removal of these trained men and what it would cost to substitute for them?

Lieutenant STICKLEY. I do not know whether I have it with me or not.

Senator WALSH. What is estimated to be the cost of training any one of you men for five years?

Lieutenant STICKLEY. That is a question I will have to work out.

Senator WALSH. All right; I thought I heard some of you men refer to it.

Lieutenant STICKLEY. I worked out a whole lot of other questions.

Senator WALSH. That is all.

Senator KEYES. Any questions, Captain Williams?

Captain WILLIAMS. No, sir.

Senator KEYES. Very well. We will adjourn until Monday morning at 10 o'clock.

(Whereupon, at 12.30 o'clock p. m., the subcommittee adjourned until Monday, April 24, 1922, at 10 o'clock a. m.)

NAVAL RESERVE FLYING CORPS.

MONDAY, APRIL 24, 1922.

UNITED STATES SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C.

The committee met, pursuant to adjournment, at 10 o'clock a. m., in the room of the committee, Capitol Building, Senator L. Heisler Ball (chairman) presiding.

Present: Senator Keyes.

Present also: Senator Walsh of Massachusetts.

The CHAIRMAN. The committee will be in order.

Captain WILLIAMS. Senator Walsh, will you allow me to hand you this letter, which is the best I can do relative to the situation at Anacostia. It is a copy of an unofficial letter written by Lieutenant Bush, from Anacostia.

Senator WALSH. Thank you; it can go in the record.

(The letter referred to is here printed in full, as follows:)

OCTOBER 15, 1920.

Capt. T. T. CRAVEN,
United States Navy, Operations, Navy Department,

Washington, D. C.

DEAR SIR: In view of the fact that there are approximately 10 officers assigned to this station who desire to take the examination for a commission in the Regular Navy and as there is no officer available here who feels that he is qualified in the science of navigation to act as an instructor in this subject, it is requested, if practicable, that some officer from the bureau who is willing to render the required assistance be authorized to give lectures and act as an instructor to those desiring to prepare for the examination. Arrangements for transportation and time will be made to suit the convenience of the officer concerned.

Sincerely yours,

R. H. BUSH.

Senator WALSH. I want to show in the record the fact that in the examination on aviation there were, first, five general questions; then the remaining five questions, or the remaining half of the paper, assuming there were ten questions altogether, were in lighter than air and half in heavier than air, that when it came to marking and examination papers there was no expert on lighter than air to mark the papers attached to the examining board. I say that because, for instance, Lieutenant Bradford is a lighter-than-air specialist, and he failed in aviation; he answered all the questions in lighter than air. It may be some contribution to the situation to find there were no men to mark the papers that had experience in lighter than air. I think that is not disputed. I have been trying to find out information about that, and I am told it is the fact.

It may not be as important as it appears to me to be. It may be that a heavier-than-air could mark lighter-than-air papers just as well, but I think the fact ought to appear, as there was an option about the form of question.

TESTIMONY OF LIEUT. LE GRANDE F. KIRK, UNITED STATES NAVY.

(The witness was sworn.)

Senator WALSH. What is your full name?

Lieutenant KIRK. Le Grande F. Kirk.

Senator WALSH. How old are you?

Lieutenant KIRK. I am 25.

Senator WALSH. What is your residence?

Lieutenant KIRK. Youngstown, N. Y.

Senator WALSH. What were you doing at the time of the outbreak of the war?

Lieutenant KIRK. I was a student in high school and later in college, Colgate University.

Senator WALSH. When did you enlist?

Lieutenant KIRK. I enlisted June 4, 1918.

Senator WALSH. While you were at the university?

Lieutenant KIRK. Yes, sir; after the close of that year.

Senator WALSH. After the close of the school year?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Where did you go after you enlisted?

Lieutenant KIRK. I was sent to Boston Tech., where I received my ground school training in aviation.

Senator WALSH. How long was that training?

Lieutenant KIRK. I was there for three months. I then went to Key West, Fla., where I received my elementary flight training.

Senator WALSH. This may be interesting to know, and perhaps the committee does know it, and I happen to know of it because of my being at Boston at the time, that after the Aviation Bureau got active, after the outbreak of the war, they established a ground school at Boston Tech.

Lieutenant KIRK. Yes, sir.

Senator WALSH. Where an intensive training in educational subjects, all relating to aviation, was given to all the young men who enlisted for three months.

Lieutenant KIRK. Yes, sir.

Senator WALSH. And you went to that school?

Lieutenant KIRK. Yes, sir.

Senator WALSH. After that you went where?

Lieutenant KIRK. I went to Key West, where I received elementary flight training. From there I went to Miami, Fla., where I received elemental training in H boats and aerial navigation. In December, 1918, I was transferred to Pensacola, where I received my advance training and where I have been stationed since.

Senator WALSH. Will you give me the date you went to Pensacola?

Lieutenant KIRK. I believe I went to Pensacola about December 10, 1918.

Senator WALSH. And you have been there ever since?

Lieutenant KIRK. Yes, sir.

Senator WALSH. What have you been doing there?

Lieutenant KIRK. I finished my course as a student about January 15, 1919. Then, while a student, I began to instruct in bombing. I was commissioned ensign February 3, 1919. I was commissioned junior grade April 6, 1920, and I received my full lieutenantancy in January, 1921.

During this time at Pensacola my duties have been those of bombing instructor, of test pilot, of instructor in all types of planes, chief instructor in all types, assistant squadron commander, and squadron commander.

Senator WALSH. During the time you have been at Pensacola how many instructors were there at a time?

Lieutenant KIRK. Probably 35 or 40 instructors up until July 1, 1919. By that time all the students had been commissioned and were put on inactive duty.

Senator WALSH. That is, students who went in during the war?

Lieutenant KIRK. Yes, sir. I may say that an order came out, signed by the Secretary of the Navy, saying that all men commissioned after the armistice would be put on inactive duty.

Lieutenant Stickley and myself having been commissioned quite late, were allowed to remain on active duty by request of our commanding officer.

In September, 1918, the first Annapolis class came to Pensacola.

Senator WALSH. Up to that time all the classes had been reserve officers?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Or men qualifying for reserve officers?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Proceed.

Lieutenant KIRK. I believe up to the present time there have been about 200 Annapolis naval aviators who have finished the course at Pensacola, and at the present time there are 40 in training that expect to finish July 1.

Senator WALSH. So that since that time there has been about 240 Annapolis men at Pensacola?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Who have given these 240 men their training?

Lieutenant KIRK. They have been receiving their ground school instruction by Annapolis men, and a few reserves who were specialists in aviation subjects. They have been receiving all their flight training by reserve officers and temporary officers. A year ago this time Lieutenant Duncan, United States Navy, was appointed chief instructor. Lieutenant Duncan now is the only Annapolis man who has any direct bearing on practical flying.

Senator WALSH. How many instructors are there now?

Lieutenant KIRK. At the present time there are 10 instructors.

Senator WALSH. How many of them are reserve officers?

Lieutenant KIRK. Five of those are reserve officers who will be put on inactive duty July 1.

Senator WALSH. Because they failed?

Lieutenant KIRK. Yes, sir; because they failed on the examination.

Senator WALSH. How many instructors were there at the time of the examination?

Lieutenant KIRK. At the time of the examination I believe there were the same number, 10.

Senator WALSH. How many took the examination?

Lieutenant KIRK. All took it except one man who was in the hospital.

Senator WALSH. So, 9 of these 10 instructors were reserve officers and took the examination?

Lieutenant KIRK. Yes, sir.

Senator WALSH. What was a peculiarity about the examination as far as they were concerned?

Lieutenant KIRK. So far as flight instructors are concerned, there was not a man that passed the examination on who six months prior to the examination was actually and constantly engaged in flight instruction.

Senator WALSH. What is your explanation of that?

Lieutenant KIRK. My explanation of that is that the people who were doing the flying were under a very heavy strain. Since I have been at Pensacola there have been perhaps 200 crashes, and 40 men killed. When you take a man up in a plane, perhaps a man who has never been in the air before, and attempt to instruct him to fly in 10 hours, one naturally can not help being under a heavy strain. The instructors, all experienced men and all excellent pilots, have all had crashes with one or two exceptions. A man is apt to crash most any time, and the strain is very great.

Senator WALSH. Will those entire nine men be lost to the service that have been instructors all this time down there?

Lieutenant KIRK. There will be 9 men, reserve officers, from Pensacola, that will be lost to the service, 5 of whom are doing instructing duties.

Senator WALSH. What about the other 4 men?

Lieutenant KIRK. The other 4 men have other positions in the yard. They are not flight instructors.

Mr. WALSH. You mean that of the present men 5 who are flight instructors, with all the experience of years they have had, will go out of service July 1?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Among them probably yourself?

Lieutenant KIRK. Yes, sir.

Senator WALSH. What other men? One of them is here.

Lieutenant KIRK. Lieutenant Kearney is here.

Senator WALSH. Who else?

Lieutenant KIRK. Ensign Davis, Lieut. J. G. Arthur, and Ensign Parker.

Senator WALSH. What are they going to do for experienced instructors who have been instructing two and three years when others like you are going to get out of the service?

Lieutenant KIRK. I wish to say that the policy of the Bureau of Aeronautics was to keep the reserve officers on active duty until January 1, 1924.

Senator WALSH. How do you know about that policy?

Lieutenant KIRK. Because I received that information with Lieutenant Kearney from the superintendent of training at Pensacola. He told me it was

the policy of the Bureau of Aeronautics to keep the reserve officers in until January 1, 1924, and during that time to attempt to train 140 naval aviators.

Senator KEYES. Will you give the name of the superintendent to whom you refer?

Lieutenant KIRK. Lieut. Charles Mason.

Senator WALSH. From where are these 140 officers to come?

Lieutenant KIRK. From the fleet.

Senator WALSH. I mean, are they Annapolis men?

Lieutenant KIRK. Yes, sir.

Senator WALSH. I gather from what you say you were told that you men would be held until 1924.

Lieutenant KIRK. Yes, sir; that was the policy.

Captain WILLIAMS. That the reserve officers would be held?

Lieutenant KIRK. Yes, sir.

Senator WALSH. And in that time they would be able to train enough Annapolis men to take your places?

Lieutenant KIRK. Yes, sir; there is a great demand for naval aviators, and they are trying to train them as fast as they can. They wanted to train 140 from July 1 of this year to January 1, 1924.

Senator WALSH. Lieutenant, I have gotten the impression, and I do not want you to let me do an injustice, that down there you have been giving a preliminary flight training to a good many of these men, who just get acquainted with it for the sake of saying they can fly, and then they are assigned to line duties. If that is not so, I want you to put me right.

Lieutenant KIRK. Perhaps, for the benefit of the committee, I had better explain the duties and the flight training at Pensacola. Flight training down there lasts from six to eight months. The first month is spent in ground-school work, where the students are given ground subjects only.

Senator WALSH. It is a lecture course?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Studies mostly?

Lieutenant KIRK. Yes, sir. On the beach during their six or eight months' stay they receive 10 hours' instruction in N-9's. That is the first plane they receive instruction in. They then get 30 hours solo in that type, each 5 hours being checked by an instructor to see that they are progressing properly. From that type they go to the H boats, where they receive 5 or 7 hours' training; then 10 hours solo. During that time they receive two checks, a 5-hour solo check and a final check. From that type they go to H-16, where they receive from 6 to 9 hours' instruction. They then have 10 hours solo and get two checks, a 5-hour check and a final check. They then have 18 flights on navigation problems. They then go to bombing and gunnery, where they get practical work along those two lines.

That completes their course, and they are then sent to various stations. Some of them go to the west coast, where they receive elementary training in land planes. Some of them on the west coast go direct to the big boats, where they become assistant pilots in F-5-L's and do spotting work for the fleet. Some go to the Atlantic Fleet, where they become assistant pilots; and I believe a few of them are given administrative positions on different stations.

Senator WALSH. They still keep in aviation?

Lieutenant KIRK. Yes, sir.

Senator WALSH. My impression was wrong, then.

Lieutenant KIRK. Yes, sir.

Senator WALSH. At least, when they leave the school. They may some time later go back to the line, but not immediately after leaving the school?

Lieutenant KIRK. No, sir.

Senator WALSH. Is there anything else you want to say about your experience and qualifications and those of Lieutenant Kearney, to save my calling Lieutenant Kearney?

Lieutenant KIRK. No, sir; not especially.

Senator WALSH. What was there at Pensacola to prepare for this examination after notice was received of the character of the examination, in October of 1920?

Lieutenant KIRK. November 1 a school was established. This school consisted of one-half hour periods from 12.30 to 1 o'clock daily except Saturday and Sunday. Lieutenant Cassard had charge of this class, and gave out papers outlining home study. A great deal of the time was devoted to navigation. A great deal of Mr. Cassard's time was spent in putting navigation problems on the

board during this half-hour period, and allowing the students who had worked that problem the night before to correct their papers.

Near the end of the course one or two men at Pensacola who were especially well read in their subjects gave lectures on their particular subject. Lieutenant Roth gave us a lecture on fire control.

Senator WALSH. One lecture?

Lieutenant KIRK. Two lectures.

Senator WALSH. What had fire control to do with the examination?

Lieutenant KIRK. Fire control has to do with ordnance and gunnery. Lieutenant Scott gave one lecture on electricity. Lieutenant Sloman gave a lecture on lighter-than-air work, and Lieutenant Hewitt gave a lecture on heavier-than-air work, because there were lighter-than-air and heavier-than-air students in this class, and one did not know the work of the other. During this time there was no work outlined in the subject of aviation, Lieutenant Cassard believing that everyone was well versed in that subject.

Senator WALSH. There were four or five of these extra lecturers?

Lieutenant KIRK. About that many.

Senator WALSH. On other subjects than navigation, and you say Lieutenant Cassard spent most of his time on navigation?

Lieutenant KIRK. For the first part of the course.

Senator WALSH. This lecture was for a half hour at the lunch period?

Lieutenant KIRK. Yes, sir.

Senator WALSH. From 12.30 to 1 o'clock?

Lieutenant KIRK. Yes, sir. They could not strictly be called lectures. The students would come to class. The roll call would be taken. Mr. Cassard would go over the papers, go over the outline that he had assigned, and tell the people points that were especially necessary for them to familiarize themselves with. In other words, he did not stand upon a platform and deliver a prepared lecture for 30 minutes.

Senator WALSH. This outline, from what I have seen of it, was really directing you as to how many pages you should cover that night in order to keep pace with the time you would have on the examination, in all the subjects?

Lieutenant KIRK. Yes, sir.

Senator WALSH. For instance, for lesson No. 2, which was to be studied Monday night, it says, "Marine and naval boilers, pages 126 (expansion joints), 133 (reducing valves), 140 (firing tools), 141 (firing accessories for liquid-fuel-burning boilers), 146 (oil burners), 195 (furnace losses)."

That means beginning at those pages?

Lieutenant KIRK. Yes, sir.

Senator WALSH. It does not mean this is all on that one page?

Lieutenant KIRK. No, sir; not necessarily.

Senator WALSH. That was the entire lesson No. 2?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Then he gave you six form questions?

Lieutenant KIRK. Yes, sir.

Senator WALSH. And you were supposed that night to read over from pages 126 to 195 in that subject?

Lieutenant KIRK. Yes, sir; the pages covering the text.

Senator WALSH. And the answers to those questions would be found somewhere in that subject matter?

Lieutenant KIRK. Yes, sir. I might add that that was the second week, and this lesson is comparatively short.

Senator WALSH. Can you give us an example of a long lesson?

Lieutenant KIRK. No, sir; this is the only one I picked up. I might add that as we went on with the course the time was so short that it could not be covered. Sometimes we would have outlines of more than one subject for one evening.

Senator WALSH. How many subjects would you get sometimes in an outline?

Lieutenant KIRK. That is hard to say. I know that you could study for some five or six hours, and you would not clearly understand what you had then.

Senator WALSH. Did you attend all these lectures?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Did Lieutenant Kearney?

Lieutenant KIRK. As far as I know Lieutenant Kearney did. I might add that I was away on duty for a period of two weeks just prior to the examination.

Senator WALSH. Where?

Lieutenant KIRK. I was ordered to take Assistant Secretary of the Navy Roosevelt and his aid from Miami to Cuba.

Senator WALSH. Did you fly them?

Lieutenant KIRK. Yes, sir; I flew the aid.

Senator WALSH. You must have been very good if you were ordered to take such precious human lives.

Lieutenant KIRK. I can not state that, sir.

Senator WALSH. So you were away entirely from the instruction during that time?

Lieutenant KIRK. Yes, sir. Outside of that I did not miss a lecture.

Senator WALSH. Do you think the school or the lecture course was sufficient to ground men in the subjects in which they were to be examined?

Lieutenant KIRK. No, sir.

Senator WALSH. Why? Dilate upon that, please.

Lieutenant KIRK. Because, sir, according to the letter read here yesterday, if these schools ran for only 24 weeks, 5 days a week, and one-half hour a day, as I believe you have figured it out, it would be about 60 hours, and 60 hours was not enough time to prepare us for the examination we took.

I might say that the people that passed down at Pensacola were people, in a great many cases, who were not adapted to the duties of flight instructor, and the people who had minor office positions. In those minor office positions they had two or three or four hours a day in which to study, and even if their time was entirely occupied they were fresh physically and mentally to continue their studies during the evening, while it is a physical impossibility for a man who has been instructing four or five hours a day to go to his room and study from after dinner until 12 or 1 o'clock, night after night.

An example of that is Lieutenant Murphy, who is at Pensacola. He was sent down there from the fleet to begin instructing in this class February 6. He was a lieutenant who took the examination and passed for ensign. He is supposed now to be studying for promotion to junior grade. Although he has been there only a few months he has made a request that he be given a change of duty, so that he can use his time to prepare for his junior-grade examination, as under existing conditions it is a physical impossibility for him to study night after night to prepare properly for this examination.

Senator WALSH. How many different men do you take up in a given day?

Lieutenant KIRK. We have five students, and we give each student one hour instruction a day.

Senator WALSH. That is, when you are actually in the air?

Lieutenant KIRK. Yes, sir.

Senator WALSH. And the time before and the time after explaining and talking to them is in addition?

Lieutenant KIRK. Yes, sir.

Senator WALSH. So that you are actually in the air with five different students five hours altogether?

Lieutenant KIRK. Yes, sir. That is not every day, of course.

Senator WALSH. Does that often happen?

Lieutenant KIRK. It often happens; yes, sir.

Senator WALSH. These five men are of different degrees of knowledge and experience?

Lieutenant KIRK. And temperament.

Senator WALSH. Yes; that is perhaps the word I am trying to get. Were you relieved at all from any of your duties to prepare for this examination?

Lieutenant KIRK. No, sir; I was not relieved at all, not for an hour.

Senator WALSH. What do you think of the character of the examination in view of the opportunity you had to prepare for it and getting sufficient instruction?

Lieutenant KIRK. I wish, sir, to be frank about that. My opinion for a while was that the Navy Department knew very well, in the short time we had to prepare for this examination, that we could not pass a regular examination given to full lieutenants.

Senator WALSH. It would be impossible for you all to get 2.5 in every subject?

Lieutenant KIRK. Yes, sir. And I believe in giving this examination it was the idea of the Navy Department to find out what kind of men we were, to find out whether in the time we had to study we showed sufficient intelligence to prove that when we were given line duties aboard ships we would pick up reasonably quick the work that was necessary for us to know.

That, sir, was my opinion, but my better judgment told me to study. By that I do not mean that originally I did not think it necessary to study, but I thought that was their idea in giving the examination, because it would be impossible for a man in nine months, a half hour a day, to prepare to pass an examination that is required of Annapolis graduates and men that have had four or five years' sea experience. I studied and studied hard. I will tell you how we studied. Most of the men prepared a notebook like this [indicating]. They had the syllabus of the various subjects that was pasted in a large book.

Senator KEYES. Is that your notebook [indicating], Mr. Kirk?

Lieutenant KIRK. Yes, sir; that is my book. Some of the men would get a book on engineering. They looked up the questions asked in engineering in the syllabus. We would have 10 or 15 typewritten copies of the answer made, which they would distribute around to friends of theirs, and that would be pasted into this book. Another man would take a book on international law, and he would get 10 or 15 typewritten pages covering the entire subject, and he would pass that around to his friends.

That was done in electricity and was done in every subject. In addition to that, we bought textbooks. Before the class started I bought, with another man, \$34 worth of books and started studying before the regular school was opened.

When the results of the examination were published I found out the subjects I could study alone were the subjects in which I had passed. For instance, military law; you can take a law book and read it and study it; I passed in military law. You can take regulations and read it and study it; I passed regulations. You can take international law and read it and study it, and I passed it.

Subjects like engineering and electricity I studied as hard as I could, and I received a fair mark but not a passing mark. Many of the students at Pensacola were specialists in electricity and gunnery and in engineering. We would go down to their rooms sometimes for three or four hours at a trip and go over the syllabus that was outlined in engineering. We would ask them questions, and we would have them ask us questions. We would take the questions from the syllabus and give them what we thought were the proper answers and have them correct our answers. We studied that way so that we would be able to pass the examination.

I want to bring out to the committee that the people down there were so anxious to pass the examination that five men attended a class and paid for their instruction. You do not, Captain Williams, want the man's name mentioned that conducted that class.

Captain WILLIAMS. I do want it.

Lieutenant KIRK. You do want it?

Captain WILLIAMS. Yes.

Senator WALSH. I do not want it mentioned.

Lieutenant KIRK. You do not want it mentioned?

Captain WILLIAMS. I do.

Senator WALSH. I do not.

Captain WILLIAMS. I will ask you to give it to me. It is a question of discipline.

Senator WALSH. The only purpose of mentioning it is to show the spirit that existed upon the part of the men down there.

Lieutenant KIRK. That is my idea.

Captain WILLIAMS. I would like very much to have his name.

Senator WALSH. It is not mentioned as a complaint. The man is not to blame.

Captain WILLIAMS. I am going to ask these boys to give me his name. I thoroughly and absolutely disapprove of this sold instruction, and I intend to bring it to his attention if I can get hold of his name.

Senator WALSH. If these boys wanted him to do it, I do not see that there is any objection, and I do not see that he is to blame. It is mentioned merely to show the spirit which animated the boys.

Lieutenant KIRK. That is my idea; to show the spirit. There were five men down there that attended a class from 4.30 until 5.30 daily, and paid \$1 per hour each for that instruction. I have telegrams in my pocket to prove that.

Captain WILLIAMS. I do not like to let it go in that way. I would like to have it brought out whether this man was doing this instruction in office hours when he should have been giving these men instruction—

Senator WALSH (interposing). We do not claim that at all. That man did it in his own free time. He was a good man to give it to them, and they were lucky to get him. The only reason we offer it is to show the anxiety that

existed on the part of some of the boys who were willing to pay money for instruction. Personally, it is not at all a reflection upon the officer.

Captain WILLIAMS. I am very much taken with that book and that these men were working hard upon these subjects. I want you to answer me one or two questions, if Senator Walsh will permit me.

Senator WALSH. Certainly.

Captain WILLIAMS. I understand you went to Boston Tech?

Lieutenant KIRK. Yes, sir.

Captain WILLIAMS. The course at Boston Tech is how long?

Lieutenant KIRK. It varied sir. I was there three months. As the classes came on later on, there were so many people that had to stay in the receiving ship—

Captain WILLIAMS (interposing). You were there three months?

Lieutenant KIRK. Yes, sir.

Captain WILLIAMS. That does not specify what your general education was. Where had you been before Boston Tech? How well educated do you consider yourself?

Lieutenant KIRK. I was one year in Colgate; I came as freshman from Colgate to Boston Tech.

Captain WILLIAMS. How did you graduate from Colgate? With honors or what?

Lieutenant KIRK. I had only a year of instruction. I was vice president of the class, the first semester, and president of the class the second semester.

Captain WILLIAMS. I do not want to take up any more time. I am doing this for my own interest and the interest of the committee. You have there a certain question?

Lieutenant KIRK. Yes, sir.

Captain WILLIAMS. A question in electricity, let us say.

Lieutenant KIRK. Yes, sir.

Captain WILLIAMS. You had apparently a sort of a club to study those questions. If I were studying those questions I should study each one of them myself, and I think you will admit that was the better way to do it.

Lieutenant KIRK. I do not mean to say we had a club. These 10 or 15 people would get together.

Senator WALSH. You had what you would call a quiz?

Lieutenant KIRK. Yes, sir. There probably would be one or two men that would go down to a man's room who had a lot of experience on a seagoing ship, as engineering officer, things with which they had never come in contact, and they would ask him questions. Sometimes he would sit down and draw diagrams and pictures and explain matters. Often it would be only for a short time.

I mention that to show the spirit of the boys and to show that we conscientiously tried to do what we could.

The CHAIRMAN. How many of the boys passed?

Lieutenant KIRK. Fifty-seven per cent of the people at Pensacola passed; I mean they received a commission. How many actually passed in their grade I am not prepared to say.

The CHAIRMAN. Fifty-seven per cent of them passed?

Lieutenant KIRK. Yes, sir. But the point is that the people who passed were not the people who were doing the actual flying work. The people at the desks, holding minor jobs, were the people that passed and not the people who were doing the hazardous flying four and five hours a day.

Senator WALSH. They all practically failed?

Lieutenant KIRK. Yes, sir.

The CHAIRMAN. You had instruction there how many months?

Lieutenant KIRK. For several months, from 12.30 to 1 o'clock, one-half hour during our noon period.

Senator WALSH. We figured out the other day, Mr. Chairman, perhaps in your absence, there were 24 weeks, 5 days a week, half hour a day, which would mean that 60 hours altogether was given.

Senator KEYES. I would like to ask you a question. I understand the school was established at Pensacola in November?

Lieutenant KIRK. Yes, sir.

Senator KEYES. Prior to that time had you knowledge that it was the intention of the Navy Department to give you examinations for promotion or transfer to the line, to the Regular Navy?

Lieutenant KIRK. We had knowledge, but it was not very certain. All we had, as I understand it, were rumors. The boys had talked about it themselves, and they thought they would have examinations, but it was not really confirmed, nor the scope of the examination, the subjects to be covered, until the syllabus was gotten out.

Senator KEYES. So that prior to November you made no effort yourself to do any special study with a view of taking the examination?

Lieutenant KIRK. Yes, sir. With Ensign Pennington I bought \$37 worth of books.

Senator KEYES. Was that prior to November?

Lieutenant KIRK. Yes, sir; and I studied the law books, which are easier to study than engineering or something else.

Senator WALSH. It did not require direction and explaining.

Lieutenant KIRK. Yes, sir.

The CHAIRMAN. Do you know in how many branches you passed?

Lieutenant KIRK. Yes, sir; I passed in those three, in the law subjects—regulations, international law, and military law.

Senator KEYES. Did not you pass in aviation?

Lieutenant KIRK. No, sir.

Senator KEYES. Aeronautics?

Lieutenant KIRK. No, sir; I will tell you the unfortunate part of that. The examinations were given to us on one sheet of paper. The aviation examination was very long. It took Lieutenant Arthur 55 minutes to write the questions, which allowed him the rest of the time, 2 hours and 5 minutes, to answer them. It took him one-third of the time to write the questions. I opened my envelope for the aviation subject and pulled out one sheet of paper and spent the entire length of time, until 12 o'clock, answering the questions on that sheet. There was nothing on the first sheet to indicate there was a second sheet. There was not a clipping, there was not a notation, nor any statement at all. As all other examinations had only one sheet, I thought there was only one sheet to this subject. It was carelessness, I suppose, on my part. But I did not know until 12 o'clock, when the examination papers were being handed in, that there were two sheets to that examination, and that my second sheet was in the envelope. There were three people down there in that same condition. We did not know until 12 o'clock, when they took up the papers, that there were two sheets in the aviation examination. I requested permission of the board to have more time, but they told me it was not in their power to grant it. I wrote out a statement on my examination paper saying I was unaware until 12 o'clock that there were two sheets to the examination. I sent a long letter to the Secretary of the Navy, to the examining board, explaining it, and on my card I noticed a notation on the back telling of the statement I had put in.

Senator KEYES. If you had used up all your time in answering the questions on the first page, and you had come across your second sheet, you would not have had time for the rest of the examination.

Lieutenant KIRK. I certainly would not have taken the time and pains to answer the first half the way I did, had I known there was that much more.

The CHAIRMAN. Did you answer the first page properly?

Lieutenant KIRK. I do not know.

Senator WALSH. Could you not tell from your mark on the number of questions that you did answer, what that would represent?

Lieutenant KIRK. No, sir.

Senator WALSH. What was your mark?

Lieutenant KIRK. I do not know.

Senator WALSH. If you answered only half the questions and got a certain mark on them, if you answered the rest in the same manner, you would have gotten double that mark.

Lieutenant KIRK. The unfortunate part of that, again, is the fact that the first half of the examination, the part I answered, was not the part with which I was familiar. It had to do with tactics of the fleet or tactics of flying, which, as far as I have been able to find out, was not given us in our outline on aviation. They asked about the fleet being in column, being in squadron, what different orders were given on each ship to change the order, and one thing and another, which I did not find in the syllabus for aviation. The things I actually knew about was bombing and gunnery, general questions, that I could have answered perfectly, and they were on the last sheet.

Senator WALSH. What are the names of the other officers that had the same experience?

Lieutenant KIRK. Lieutenant Henderson and Lieut. J. G. Acker.

Senator WALSH. From the fact that there were two sheets for the subject of aviation, I judge it was about twice as long as the other examinations?

Lieutenant KIRK. Yes, sir.

Captain WILLIAMS. How old are you?

Lieutenant KIRK. Twenty-five years old.

Senator WALSH. How many hours have you spent in the air in instructing students?

Lieutenant KIRK. When I left Pensacola I looked at my log and I had 1,332 hours.

Senator WALSH. How many mishaps or accidents have you had by yourself or with students in that time?

Lieutenant KIRK. When I was a student I had an accident due to a "porpoise." When I was an ensign and a passenger in a plane, the plane crashed. No one was injured and it was through no fault of my own; I was merely a passenger and did not have a chance to get to the controls. Those were the only accidents. I have never had an accident where I have been piloting since being commissioned.

Senator WALSH. While you have been giving piloting instruction, how many boys have passed through your hands, will you say, approximately?

Lieutenant KIRK. Approximately 240 naval aviators, academy men, and hundreds of other men; I do not know how many.

Senator WALSH. And you have never had an accident of any kind?

Lieutenant KIRK. No, sir; except the above mentioned.

Senator WALSH. You never have cost a dollar's worth of loss to the Government from an accident in a plane, or lost a life of any of the students?

Lieutenant KIRK. No, sir; except the above mentioned. That record of 1,332 hours is considered a lot of time. There are perhaps not 10 men in the service that have had that time. I believe there are not more than one or two that have put in that much flying in that short space of time, from the time I was commissioned until the present time.

Lieutenant HAVILAND. There is not anybody I know of that has put in that amount in that length of time, in the short period of two and one-half years.

Senator WALSH. Will you give me the full name of Lieutenant Kearney, so that I will not have to call him?

Lieutenant KIRK. Lieut. P. E. Kearney.

Senator WALSH. How long has he been an instructor at Pensacola?

Lieutenant KIRK. He has been there four years and six months.

Senator WALSH. His story is substantially the same as yours?

Lieutenant KIRK. Yes, sir. Lieutenant Kearney was squadron commander for two years, much longer than I was squadron commander. The rest of the time he has been doing instructing duty.

Senator WALSH. Would you say his record compared favorably with your record?

Lieutenant KIRK. Yes, sir.

Senator WALSH. Perhaps you could say more about him than he would say about himself?

Lieutenant KIRK. Yes, sir. Lieutenant Kearney, as well as myself, have had an opportunity to look over our fitness reports, and they are most excellent. The records of both are clear. As far as I know, he has never been put on report.

Senator KEYES. Do you know whether or not he passed?

Lieutenant KIRK. Lieutenant Kearney did not pass. He was in the same position as myself.

Senator KEYES. Did he pass in aeronautics?

Lieutenant KIRK. He did not.

Senator WALSH. Has he been an instructor also?

Lieutenant KIRK. Yes, sir.

Senator WALSH. And having this same large number of students go through his hands, as you have?

Lieutenant KIRK. Yes, sir.

Senator WALSH. In a measure you and he represented the instructors at Pensacola?

Lieutenant KIRK. Yes, sir.

Senator WALSH. That is, they have delegated you to present to this committee the case of the students there?

Lieutenant KIRK. In the Navy no one can delegate you to do anything unofficially; but we are up here representing ourselves.

Senator WALSH. You have found that out by experience?

Lieutenant KIRK. This is not concerted action in any way. We are up here looking out for ourselves.

Senator WALSH. Do you know how old Lieutenant Kearney is?

Lieutenant KEARNEY. Twenty-seven to-day.

Lieutenant KIRK. This is his birthday.

Senator WALSH. What has been his education?

Lieutenant KIRK. Three years at Boston College.

Senator WALSH. Will you tell me about Lieutenant Darby, what is his full name?

Lieutenant KIRK. Lieut. A. M. Darby.

Senator WALSH. I tried to get him to come, and you, Captain, did everything you could, but he asked me to excuse him, and I have excused him.

Captain WILLIAMS. In justice to him, it is my understanding—

Senator WALSH. He first wrote me and wanted to appear, but when the time came for the hearing, he was busy surveying the delta of the Mississippi, especially assigned for that work. He will resign, and is leaving the Navy. He had been demoted to an ensignship. But he wants to finish that work before he leaves, as a matter of pride, so I excused him, but I want to show by this witness what the line of his service has been.

Senator KEYES. He is one that did pass?

Senator WALSH. As ensign and declined to accept.

Senator KEYES. But he did pass the examination?

Senator WALSH. Yes, sir. Tell us about him, Lieutenant.

Lieutenant KIRK. Lieut. A. M. Darby is 29 years old, and has had five years, five or six years at college, receiving the degree of A. B. at the University of Pennsylvania, and took a post graduate course at Cornell. He has been in the naval service since May, 1917. For a time he was instructor at Pensacola, but because of his special qualifications he was soon detailed to photographic work. He soon took charge and had charge of that department for perhaps two years. He went down to Burrwood, La., to map the delta, and was down there several months prior to the examination. While there he was unable to get any instruction, but he studied the best he could from the textbooks he had. He took the examination at the navy yard, New Orleans, and passed for ensign. When the results were announced, he did not feel that he could accept an ensignship. The Navy Department ordered on inactive duty all men who refused to accept commissions in the permanent Navy.

Senator WALSH. Pardon me. That is a point, Mr. Chairman, I wanted to bring out, for what it is worth, that men who failed were not ordered to inactive duty, but for some reason or other, it looks like resentment, those that passed and were willing to continue but refused to take a lower rank were immediately dismissed from the service. He was one of that number.

Lieutenant KIRK. Yes, sir.

Senator WALSH. But for special reasons he was retained.

Lieutenant KIRK. Yes, sir. Lieutenant Darby was to be put on inactive duty, but I understand the Geodetic Survey requested, through the Navy Department, or through Captain Cristy, that he be allowed to stay on active duty and continue the work he was doing at Burrwood, La. Accordingly Lieutenant Darby is now at Burrwood and hopes to finish the work he is now doing before the 15th of May, when he will be placed on inactive duty.

Senator WALSH. Would you care to state that Lieutenant Darby is a type of several other men in the reserve corps who is not financially dependent upon this life as a profession?

Lieutenant KIRK. No, sir; he is not dependent upon it.

Senator WALSH. His service and work has been more in the nature of a labor of love?

Lieutenant KIRK. Yes, sir.

Senator WALSH. It has been so with all of you, but more so with men who did not have to consider the pay envelope?

Lieutenant KIRK. Yes, sir.

Senator WALSH. I think that is all.

Commander Ellyson, you made a statement the other day when you testified about which I want to catechise you briefly. I think perhaps it is a misunderstanding. You stated:

"In January, 1920, I was ordered to Hampton Roads as executive officer of the air station at that place." Then you proceeded to testify about the arrangements for examinations in the fall of that year.

Commander ELLYSON. That was the fall of 1919.

Senator WALSH. As a matter of fact, you were in Germany all during 1920 and did not get to Hampton Roads until 1921; is not that the fact?

Commander ELLYSON. The record is in error. I stated in January, 1921.

Senator WALSH. I do not think the record is in error. I think you had a slip of the tongue, because when you made the statement my attention was called to it by some of the young men at the table. I think it was reported correctly. It was a slip of the tongue. The fact is it was 1921 and not 1920?

Commander ELLYSON. Yes, sir.

Senator WALSH. So that you personally knew nothing about conditions at Hampton Roads until January, 1921, three months after this school was organized?

Commander ELLYSON. Yes, sir.

Senator WALSH. And whatever you had to say about Hampton Roads previous to that time was hearsay?

Commander ELLYSON. It was from the official records of the station.

Senator WALSH. I do not want you to think for a moment I thought there was a misstatement of the facts, but merely a slip of the tongue. Have you seen the record?

Commander ELLYSON. No, sir.

Senator WALSH. The record shows it as January, 1920, that you state you were ordered to Hampton Roads as executive officer, and, of course, it was January, 1921?

Commander ELLYSON. Yes, sir.

Senator WALSH. That is all. I have no more testimony, Mr. Chairman. There is just one point I want to bring to your attention, and that I will ask to be done by Lieutenant Bradford. It is in relation to the act of 1916. I have asked Lieutenant Bradford to call attention to the existing provisions of law that provide for a flying corps. I will ask Lieutenant Bradford to briefly state it to the committee.

The CHAIRMAN. That law provides for a flying corps separate from the line of the Navy?

Lieutenant BRADFORD. It provides for line officers with aviation duty only. You could still be a line officer and have aviation duty only.

The CHAIRMAN. Has that ever been the practice?

Lieutenant BRADFORD. It is on page 54 of the United States Navy Regulations of 1920, article 150, paragraph 6. It says:

Officers of the line restricted to certain duties.—(6) Officers of the line restricted by law to the performance of engineering duties only, officers of the Naval Flying Corps restricted by law to aeronautical duties only, officers of the Naval Coast Defense Reserve, officers of the Naval Auxiliary Reserve, and officers of the Naval Reserve Flying Corps shall have all necessary authority for the exercise of command within their particular departments or services for the performance of their respective duties, but shall not exercise military command outside of their respective departments or services. Nothing herein shall be taken to restrict the rights of officers of the line of the Navy, assigned to engineering duties only, to succeed to command on shore within the meaning of the law.

Lieutenant BRADFORD. That shows there was a Naval Flying Corps, and also there were line officers.

Captain WILLIAMS. What was the date of it?

Lieutenant BRADFORD. This is from the regulations of 1920.

Senator WALSH. Read the whole section.

Lieutenant BRADFORD [reading]:

Senator WALSH. You will remember, Captain Williams, you resented very vigorously my using the term "flying corps," suggesting there was no such thing in the Navy?

Captain WILLIAMS. If I get the point right, there was a flying corps authorized, but there was never one detailed. Is that the point?

Senator WALSH. Yes; that Congress gave the Navy the power to establish a flying corps, which you have never established; that if the provisions of the law had been carried out you could have had men assigned to the flying corps alone. They could have retained the status of line officers, but have been relieved of line officers' duties. In other words, Congress made provisions for the establishment of a distinct and separate flying corps in the Navy, and that is still the law. Proceed, Lieutenant.

Lieutenant BRADFORD. On page 533, article 1658—

Acting ensigns and second lieutenants, Marine aeronautics.—(1) Acting ensigns of the Navy and acting second lieutenants of the Marine Corps, appointed for the performance of aeronautic duties only shall, upon completion of the probationary period of three years, be appointed acting lieutenants of the junior grade, or acting first lieutenants, respectively, by the Secretary of the Navy for the performance of aeronautic duties only, after satisfactorily passing such examinations as he may prescribe, and after having been recommended for promotion by the examining board and found physically qualified by a board of medical officers of the Navy.

Appointments probationary.—(2) Such appointments shall be for a probationary period of four years and may be revoked at any time by the Secretary of the Navy.

May elect to qualify all grades.—(3) Such acting lieutenants (junior grade) and acting first lieutenants may elect to qualify for aeronautics duty only or to qualify for all the duties of officers of the same grade in the Navy, and in the Marine Corps, respectively.

Aeronautic duty only.—(4) Those officers who elect to qualify for aeronautic duty only shall be detailed to duty in the Naval Flying Corps involving actual flying in aircraft.

Qualified for regular duty.—(5) Those officers who elect to qualify for the regular duties of their grade shall be detailed to duty in the regular service for at least two years to allow them to prepare for such qualification.

Commissioned at end of probation.—(6) Such acting lieutenants (junior grade) and acting first lieutenants who have elected to qualify for aeronautic duty only shall, upon the completion of the probationary period of four years, be commissioned in the grade of lieutenant of the line of the Navy or captain of the Marine Corps for aeronautic duties only, after satisfactorily passing such competitive examination as may be prescribed by the Secretary of the Navy to determine their moral, physical, and professional qualifications for such commissions and the order of rank in which they shall be commissioned.

Extra numbers.—(7) Such lieutenants for aeronautic duty only shall be borne on the list as extra numbers, taking rank with and next after officers of the same date of commission.

How commissioned in line of Navy.—(8) Such acting lieutenants (junior grade) and acting first lieutenants who have elected to qualify for the regular duties of the line of the Navy and of the Marine Corps, respectively, shall, upon the completion of the probationary period of four years, two years of which shall have been on such regular duties, be commissioned in the grade of the line of the Navy or Marine Corps according to his length of service, after passing satisfactorily such competitive examinations as may be prescribed by the Secretary of the Navy to determine their moral, physical, and professional qualifications for such commissions and to determine the order of rank in which they shall be commissioned.

Precedence.—(9) Such officers of the line of the Navy and Marine Corps will be borne upon the lists of their respective corps as extra numbers, taking rank with and next after officers of the regular service of the same date of commissions.

Eligible for promotion.—(10) Officers commissioned for aeronautic duty only shall be eligible for advancement to the higher grades, not above captain in the Navy or colonel in the Marine Corps, in the same manner as other officers whose employment is not so restricted, except that they shall be eligible to promotion without restriction as to sea duty, and their professional examinations shall be restricted to the duty to which personally assigned.

Service in grade.—(11) Any such officer must serve at least three years in any grade before being eligible to promotion to the next higher grade. (Act of August 29, 1916.)

Senator KEYES. When was that?

Lieutenant BRADFORD. This is from the last regulations.

Senator KEYES. But when was the law passed?

Lieutenant BRADFORD. August 29, 1916.

Senator WALSH. Evidently the act passed when it was feared we might get into the war, as a preparatory measure for the war.

Senator KEYES. That is when we adopted our construction program.

Commander ELLYSON. I would like to point out—

Senator WALSH. Let us finish this now, please.

Captain WILLIAMS. I think you will save time, Senator, if you will let Commander Ellyson have a word. That flying corps is to be made up of line officers only, by law.

Senator WALSH. At that time there were none but line officers. We are bringing out the fact that under the law if a line officer chose aviation he could at any time have asked for two years of instruction, if he wanted to, before he was required to take a line examination. We are going to read that section to you now. We are pointing out the fact that provision was made if a line officer went into the flying corps he would have opportunity for instruction to keep up his work in the line duties. Read that section.

Lieutenant BRADFORD (reading): "Such acting lieutenant, junior grade, and acting first lieutenant may elect—

Senator WALSH. What does that mean?

Lieutenant BRADFORD. That means that the people in aeronautics who were going to qualify for all the duties of the line would be given two years to prepare for an examination for promotion, in order to familiarize themselves with the subjects in which they would be examined.

Senator WALSH. You could not keep a man in aeronautics against his will and require him to take an examination in line duties for promotion; but he could request two years' assignment to that kind of duty, in which he was going to be examined, for the purpose of being trained in it.

Lieutenant BRADFORD. That is correct.

Senator WALSH. That is all.

Lieutenant BRADFORD. That shows that at that time, when these rules were made by the Navy Department, a man was given what they thought was a fair chance to prepare, and that was two years in the line duties in which he would be examined. If it was fair to give at that time, it should have been fair to give the reserves who were going to take a similar examination the same treatment.

The CHAIRMAN. When was that ruling made by the Navy Department? That act I know was passed in 1916.

Lieutenant BRADFORD. I am reading from United States Navy Regulations of 1920, the last Navy Regulations, which are now in effect.

Lieutenant HAVILAND. The Navy Department evidently put that clause in, and wrote that part to protect their line officers. No one would legislate that into a bill except the people concerned; it would be the Bureau of Navigation. It must have been written in word for word by the Bureau of Navigation, as no one else would know how to protect the people.

Captain WILLIAMS. I want to recall Commander Ellyson.

TESTIMONY OF COMMANDER T. G. ELLYSON, UNITED STATES NAVY—Recalled.

Captain WILLIAMS. Commander Ellyson, you heard the statement about the law referred to. Will you state what you know about it?

Commander ELLYSON. That law was never put into effect. It was for two years only. It never was put into effect because it restricted the number of people allowed in aviation. For that reason, and since it applied to only line officers, it prevented the Flying Corps from being enlarged. I was not in aviation at that time, so I do not know all the details of it.

Lieutenant BRADFORD. If it went out of effect two years after it was passed, the date of its passage being August 29, 1916, why is it in the new Navy Regulations for 1920, which would be four years afterwards? Why would they put such an article as that in the regulations? That is what I do not understand.

Commander ELLYSON. That is a point about which, within the last month, we have asked a decision from the Judge Advocate General, asking what parts of that law are still in effect. I would like to get his decision and place it in the record.

[First indorsement.]

DEPARTMENT OF THE NAVY,
OFFICE OF THE JUDGE ADVOCATE GENERAL,
Washington, April 25, 1922.

From: The Judge Advocate General.
To: The Chief of the Bureau of Aeronautics.
Subject: Naval Flying Corps.

1. Forwarded.

2. The question presented as to how much of the act of August 29, 1916 (39 Stat., p. 582, et seq.), authorizing the formation of a naval flying corps could be placed in force now were it desired to resort to the provisions of this act, is not without difficulty.

3. From an examination of the provisions of this act relative to the formation of a naval flying corps, this office is of the opinion that said act now authorizes a naval flying corps "composed of 150 officers and 350 enlisted men, detailed, appointed, commissioned, enlisted, and distributed in the various grades, ranks, and ratings of the Navy and Marine Corps as hereafter provided." It is further provided in this act that said number of officers, student flyers, and enlisted men shall be in addition to the total number of officers and enlisted men which is now or may hereafter be provided by law for the other branches of the naval service.

5. The second paragraph under the head "Naval flying corps" of this act provides that:

"The number of officers detailed to duty in aircraft involving actual flying in any one year shall be in accordance with the requirements of the Air Service as determined by the Secretary of the Navy: *Provided*, That the officers so detailed from the line of the Navy and from the Marine Corps shall not exceed the total number herein prescribed for the Naval Flying Corps: *Provided further*, That the proportion of line officers of the Navy and of the Marine Corps thus detailed shall be the same as the proportion established for the regular service: *And provided further*, That the student flyers hereinafter provided for shall be in addition to the officers and enlisted men comprising the Naval Flying Corps."

In addition to the foregoing provision authorizing the detail of officers to duty in aircraft involving flying this act further provides:

"Nothing in this or any other act shall be so construed as to prevent the temporary detail of officers and enlisted men of any branch of the Navy for duty with aircraft."

While under these provisions the number of officers that may be permanently detailed from the line of the Navy and Marine Corps shall not exceed 150 officers; the number of officers and enlisted men of any branch of the Navy who may be detailed temporarily for duty with aircraft is unlimited.

5. The limitation on the number of officers that may be permanently detailed to duty in aircraft involving flying in any one year under the provisions of said act above quoted is amended by the last paragraph in section 8 of the act approved July 12, 1921 (Pub. No. 35, 67th Cong.), as follows:

"The number of officers and enlisted men of the Navy and Marine Corps detailed to duty in aircraft and involving actual flying and to duties in connection with aircraft shall hereafter be in accordance with the requirements of naval aviation as determined by the Secretary of the Navy: *Provided*, That not to exceed 30 per cent of the officers in each grade below that of rear admiral who fail to qualify as aircraft pilots or as aircraft observers within one year after the date of their detail into the Bureau of Aeronautics shall be permitted to remain detailed in this bureau."

This office is of the opinion, therefore, that under the provision of the act of August 29, 1916, there may be established a naval flying corps composed of 150 officers and 350 enlisted men distributed in the various grades, ranks, and ratings of the Navy and Marine Corps; and in addition thereto the Secretary of the Navy may detail temporarily for duty with aircraft as many officers and enlisted men of any branch of the Navy as he may deem necessary to fulfill the requirements of naval aviation; and that in addition thereto the Secretary of the Navy may detail to duty in aircraft and involving actual flying and to duties in connection with aircraft as many officers and enlisted men of the Navy and Marine Corps as he shall determine to be in accordance with the requirements of naval aviation, but that not to exceed 30 per cent of the officers in each grade below that of rear admiral detailed under the provisions of the

act of July 12, 1921, above referred to, shall be permitted to remain detailed in said bureau unless they qualify as aircraft pilots or as aircraft observers within one year after the date of their detail.

6. So much of the provisions of the act of August 29, 1916, as authorizes the Secretary of the Navy to appoint annually in the line of the Navy and Marine Corps for a period of two years following the passage of said act 15 acting ensigns or acting second lieutenants for the performance of aeronautic duty only, are no longer in force and all other provisions relating specifically to persons so appointed are likewise no longer in force.

7. So much of the act, however, is still in force as provides that—

"Officers commissioned for aeronautic duty only shall be eligible for advancement to the higher grades, not above captain in the Navy or colonel in the Marine Corps, in the same manner as other officers whose employment is not so restricted, except that they shall be eligible to promotion without restriction as to sea duty, and their professional examinations shall be restricted to the duty to which personally assigned: *Provided*, That any such officer must serve at least three years in any grade before being eligible to promotion to the next higher grade.

"Nothing in this act shall be so construed as to prevent the detail of officers and enlisted men of other branches of the Navy as student aviators or student airmen in such numbers as the needs of the service may require.

"Such officers and enlisted men, while detailed as student aviators and student airmen involving actual flying in aircraft, shall receive the same pay and allowances that are now provided by law for officers and enlisted men of the same grade or rank and rating in the Navy detailed for duty with aircraft."

8. So much of this act as authorizes the Secretary of the Navy "to appoint annually for a period of four years, from enlisted men of the naval service or from citizens of the United States in civil life, not to exceed 30 student flyers for instruction and training in aeronautics who shall receive the same pay and allowances as midshipmen at the United States Naval Academy" is no longer in force, and all other provisions of said act relative to the appointment of said 30 student flyers are likewise obsolete.

9. From an examination of the provisions of this act this office is of the opinion that in addition to the provisions above referred to the following remain in force:

"The officers detailed and the enlisted men of the naval flying corps shall receive the same pay and allowances that are now provided by law for officers and enlisted men of the same grade or rank and rating in the Navy and Marine Corps detailed to duty with aircraft involving actual flying."

* * * * *

"The enlisted personnel of the naval flying corps shall be distributed by the Secretary of the Navy in the various ratings as now obtain in the Navy in so far as such ratings are applicable to duties connected with aircraft."

* * * * *

"The Secretary of the Navy shall establish regulations governing the term of enlistment, the qualifications, and advancement of the enlisted men of the flying corps."

10. So much of this act, however, as authorizes the Secretary of the Navy "within the first two years after the approval of this act" to transfer enlisted men from other branches of the naval service to the naval flying corps, provided "that the number so transferred shall not exceed one-half the total number of enlisted men allowed by this act," is no longer in force.

11. It would appear from the foregoing, therefore, that not only is a "naval flying corps" duly authorized by law, but that under the provisions of the act of August 29, 1916, as amended by the act of July 12, 1921, the Secretary of the Navy is authorized to detail either permanently or temporarily to duty in aircraft involving flying such number of officers and enlisted men of the Navy and Marine Corps as he may determine to be in accordance with the requirements of "naval aviation."

12. Your attention, however, is invited to the fact that heretofore no provision has been made in naval appropriation acts for a naval flying corps since its authorization, and that the foregoing provisions of the act of August 29, 1916, as amended by the act of July 12, 1921, would necessarily be circumscribed by any limitations contained in subsequent naval appropriation acts.

Senator WALSH. I would not say it went out of effect in two years. You do not mean the law expired in two years, but you mean that the provisions for enrolling expired in two years.

Commander ELLYSON. Yes, sir.

Senator WALSH. And nearly all these men went into the Flying Corps of the Navy within two years.

Commander ELLYSON. They were not eligible, because they are not line officers in the Navy, sir.

Senator WALSH. But could you not have made a law making them eligible?

Commander ELLYSON. A law to that effect was not in force.

Senator WALSH. The law is still in effect, but the time for enrolling was in that act made for two years.

Commander ELLYSON. That is the point on which we have asked for a decision. I do not believe the law is still in effect. But I want to get the decision of the Judge Advocate.

Senator WALSH. It is not of much consequence, because the Navy did not take advantage of it, and a flying corps was never established.

Commander ELLYSON. No, sir.

Senator WALSH. The only point is that Congress was alert to this problem and had made some provision for the establishment of a flying corps; and the regulation seem to have understood the difficulty of a man being asked to pass an examination in line duties after he had been assigned to aeronautics, and they gave him two years of time to prepare for examination to get back into the line service. That was the point that impressed these young men.

Senator KEYES. I am rather inclined to agree with Commander Haviland, that Congress was not alive to the situation, and that that thing originated in the department.

Lieutenant HAVILAND. From the nature of it, it was undoubtedly written by the Navy Department.

Senator KEYES. Yes.

Lieutenant HAVILAND. Because it is to protect the line officers of the Navy. The whole thing is the Navy not wanting to give up the right of their officers to give up aviation and go back to the line; it is their career. It is a leverage from the top against aviation, which is a new thing. They want to straddle the issue, which has been their attitude all along.

The CHAIRMAN. Is there anything further, Senator?

Senator WALSH. Nothing, unless after I go through the record I discover some things I have asked for have not been furnished. In that case I will get in touch with Captain Williams and have them placed in the record.

Captain WILLIAMS. There is a report which the chairman desired on instruction, which will be prepared. We are working on it now.

The CHAIRMAN. You will have that?

Captain WILLIAMS. As soon as we can get it.

Senator KEYES. Does this conclude all your testimony, Senator?

Senator WALSH. Yes.

Senator KEYES. I do not know whether you have any suggestion, Senator. But I understand your contention is that at least some of these young men did not have a fair chance to prepare for this examination.

Senator WALSH. Yes, sir.

Senator KEYES. No doubt many of them have had valuable experience and have rendered valuable service and want to continue in the Navy. What do you suggest, if anything, be done to meet the situation that has been brought to the attention of the committee?

Captain WILLIAMS. May I state some facts in connection with legislation which perhaps may not have come to the attention of the committee yet; or would you prefer I state it in executive session, as to the conditions of legislation?

Senator WALSH. I think my answer to your question, Senator, and perhaps what Captain Williams is going to say, might perhaps be better discussed in executive session. There are so many ways in which I think the difficulty here can be obviated that would take time to discuss with you. But at your convenience I would like to talk it over.

The CHAIRMAN. I would like to suggest that the committee will become thoroughly conversant with this evidence, and then probably we will discuss it with you as well as with the members of the department. The committee is very anxious to do what is right and best for the Navy and what is right for these boys. I feel that I want to have the evidence printed and become familiar with it before I can talk with any degree of confidence either with you or with the Navy Department officials.

Senator WALSH. Exactly. You must come to a fixed conclusion in your own mind as to the character of the examination and as to the opportunity which was afforded, etc.

The CHAIRMAN. Yes.

Senator WALSH. I think there are certain facts that we will have to agree upon in order to have a background for whatever legislation is recommended or whatever request we want to make of the Navy Department.

The CHAIRMAN. Yes. The evidence will be printed as soon as possible. The committee will adjourn.

(Thereupon the hearing was closed and the subcommittee adjourned.)

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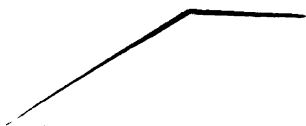
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